ISSN Cetak : 0215 - 0638
ISSN Online : 2723 - 7044

AGRIBIOS : Jurnal Ilmiah
Vol 22No 02, Bulan November Tahun 2024

ADDED VALUE OF ROBUSTA COFFEE PROCESSING IN BANG MOEL COFFEE HOME INDUSTRY IN DIFFERENT PACKAGING

Siti Alfiyah[1)], Puryantoro[2*)], Wiwik Sri Untari[3)]
[1]Agribusiness Study Program, Faculty of Agriculture Science and Technology
University of Abdurachman Saleh Situbondo
*Correspondence Email: puryantoro@unars.ac.id
DOI : https://doi.org/10.36841/agribios.v22i2.5348

Abstract

The added value of processing coffee beans into robusta coffee powder and using different packaging, namely labeled plastic packaging, and clear plastic packaging, will of course bring benefits to these entrepreneurs. Therefore, it is necessary to discuss in more detail to find out the added value obtained by the robusta coffee powder processing business in the Bang Moel Kopi household industry. This study aims to determine the added value obtained from the processing of robusta coffee powder in the household industry of Bang Moel Kopi in producing coffee powder. In this study, the analysis used is the hayami analysis method. The results of the study show that the value-added ratio of label packaging robusta coffee powder is in a high value-added position because it is >40%, while the value-added ratio of plastic packaging is in the value-added category while curry has a percentage of 15-40%. Keywords: Added Value, Robusta Coffee, Hayami Method.

Keywords: Added Value, Robusta Coffee, Hayami Method.

INTRODUCTION

Development in the agricultural sector will have a good impact on food availability, the country's economy, and be able to improve the welfare of farmers (Adisetiya et al., 2022). The plantation sub-sector has considerable potential for economic development, one of the leading commodities in the plantation sub-sector is coffee plants (Badan Pusat Statistik, 2023). Coffee is one type of plantation crop that has long been cultivated and has high economic value, based on data from the Central Statistics Agency (2022) coffee production in Indonesia in 2017 - 2022 showed an increasing trend. Coffee is of the most traded commodities in the world and its market has grown regularly over the last 150 years (dos Santos., et al. 2021)

East Java contributed 3.39 thousand tons of coffee production or 85.15 percent of the total production from Large Plantations (PB) in Indonesia. Bondowoso Regency occupies the fourth position as the largest contributor to coffee yields with a total production of 10,420 tons with a coffee plantation area of 18,289 (BPS, 2022). The high coffee production in Bondowoso makes this district a potential development area for coffee cultivation in East Java. The Bang Moel Kopi home industry is one of the businesses engaged in agricultural products located in Mangli Wetan Village, the business has no competitors in the surrounding location so that it can take advantage of it as an opportunity to continue to grow.

The added value of processing coffee beans into robusta coffee powder and using different packaging, namely labeled plastic packaging, and clear plastic packaging, of course, will create benefits for these entrepreneurs. Therefore, it is necessary to discuss in more detail to find out the added value obtained by the robusta coffee powder processing business in the Bang Moel Kopi household industry.

The difference between previous research and research conducted by researchers lies in the object and subject of research, research location, and production output. In this study,

the object of research is income, business feasibility and added value, the subject in this study is the robusta coffee powder entrepreneur Bang Moel Kopi in Mangli Wetan Village, Tapen District, Bondowoso Regency. While the output of this production is in the form of ground coffee, labeled packaging, and plastic packaging.

RESEARCH METHODS

This research was conducted in the Bang Moel Coffee home industry in Mangli Wetan Village, Tapen District, Bondowoso Regency. The location of this research was done intentionally *(purposive sampling)*. This research was conducted from November to March 2024. The tools used in this research are questionnaires containing a list of questions, stationery, calculators, and software.

The data used in this research are primary data and secondary data. Primary data was obtained by conducting direct participatory observations at the Bang Moel Coffee business place. The primary data in question consists of raw material requirements, labor, other inputs, production results, estimated selling price data, and income. Secondary data used in this study were obtained from literature and literature studies and relevant research results.

Bang Moel Coffee home industry obtains added value development or not can be seen from the category if the added value is more than zero then it is said to be a positive result, but if it is less than zero then it is said that it does not provide added value, the result is negative.

Table 1 Calculation of Added Value

No	Variabel	Unit	Notation
	Output, Input, Price		
1	Output	Kg/periode	(1)
2	Input	Kg/periode	(2)
3	Labor	HOK/periode	(3)
4	Conversion factor		(4) = (1)/(2)
5	Labor coefficient	HOK/Kg	(5) = (3)/(2)
6	Output price	Rp/Kg	(6)
7	Direct labor wages	Rp/HOK	(7)
	Revenue and Profit		
8	Raw material prices	Rp/Kg	(8)
9	Other input prices	Rp/Kg	(9)
10	Output value	Rp/Kg	(10) = (4)x(6)
11	a) Value added	Rp/Kg	(11a) = (10) – (8) – (9)
	b) Value added ratio	%	(11b) = (11a)/(10)x100
12	a) Direct labor income	Rp/Kg	(12a) = (5) x (7)
	b) Direct labor share	%	(12b) = (12a)/(11a)x100
13	a) Profit	Rp/Kg	(13a) = (11a) – (12a)
	b) Profit rate	%	(13b) = (13a)/(10) x 100
	Reply service of production factors owners		
14	Marjin	Rp/Kg	(14) = (10) – (8)
	a) Direct labor income	%	(14a) = (12a)/(14)x100
	b) Other input contribution	%	(14b) = (9)/(14) x 100
	c) Profit of campany owner	%	(14c) = (13a)/(14) x 100

RESULT AND DISCUSSION

Previously, it has been analyzed about the income of the robusta ground coffee processing business in the Bang Moel Kopi agro-industry, Mangli Wetan Village, Tapen District, Bondowoso Regency, which is profitable with total costs in 1 month of production of Rp. 16,485,233.3 and receipts of Rp. 19,296,000, and income of Rp. 2,810,766.7. 2. The feasibility of the Bang Moel Kopi robusta ground coffee agro-industry business using R / C Ratio and Break Event Point analysis shows that the business is feasible and has exceeded the break-even point (Alfiyah, et al., 2023).

The value-added of robusta coffee agro-industry calculated is the result of production during one production with a period of 1 month. The basis for calculating the added value uses kilograms of raw materials. This value-added analysis is conducted to determine the amount of value added from coffee beans to robusta ground coffee. This analysis will also see the distribution of margins obtained from the utilization of production factors used using the Hayami method analysis. The value-added analysis consists of several main components that form production costs including raw materials, other input contributions, labor and profits for each of the main components used. The results of the calculation of robusta ground coffee value added can be seen in table 2.

Table 2 Value-Added Analysis of Bang Moel Coffee Home Industry

No.	Variable	Value	
I.	Output, Input, Price	Plastic Packaging	Label Packaging
1.	Output	134,4	57,6
2.	Input	168	72
3.	Labor	72	72
4.	Conversion factor	0,8	0,8
5.	Labor coefficient	0,43	1
6.	Output price	90,000	125,000
7.	Direct labor wages	30,000	30,000
II.	Revenue and Profit		
8.	Raw material prices	55,000	55,000
9.	Other input prices	396,367	728,867
10.	Output value	72,000	100,000
11.	Value added	16,603	44,271
	Value added ratio	23,06	44,27
12.	Direct labor income	12,900	30,000

No.	Variable	Value	
I.	Output, Input, Price	Plastic Packaging	Label Packaging
	Direct labor share	77,69	67,78
13.	Profit	3,703	44,226
	Profit rate	5,14	44,27
III.	Reply service of production factors owners		
14.	Marjin	17,000	45,000
	Direct labor income	75,88	66,67
	Other input contribution	2,33	1,62
	Profit of campany owner	21,78	98,28

Sumber : Data Primer (2024)

Based on Table 2, added value is obtained from the process of grinding coffee beans into ground coffee. In one production, the raw material used is 10 kg/day with an average output of 5.6 kg/day for plastic packaged coffee products while for labeled packaging it is 2.4 kg/day.

Total raw materials in a month amounted to 168 kg for plastic packaged coffee with an average output amount produced in a month of 134.4 kg. While in labeled packaging the total raw materials in a month amounted to 72 kg and the output produced was 57.6 kg.

The product price of robusta ground coffee is IDR 55,000/kg. The total working day to produce robusta coffee is 1 day in one production. The total working days are obtained from multiplying the number of person-days per month by the number of workers so that it is known that the number of person-days is 72 HOK. Meanwhile, labor (HOK) divided by the amount of raw materials used in a month during production will be the value of the labor coefficient. In the agro-industrial production of plastic packaging robusta ground coffee, the coefficient value is 0.43 (HOK/Kg) while for label packaging ground coffee is 1 (HOK/Kg). Labor cost per HOK is Rp 30,000.

The total contribution of other inputs for the plastic packaging robusta ground coffee agro-industry amounted to Rp 396,367/kg and label packaging ground coffee amounted to Rp 729,867/kg. This value is obtained from the sum of the cost of additional materials per kg, including the cost of engine fuel, roasting fuel costs, transportation, plastic packaging, label packaging, newspapers, labor, depreciation costs and sticker costs.

The conversion factor multiplied by the product price will result in a product value of plastic packaged robusta coffee of IDR 72,000/kg while for labeled packaged ground coffee it is IDR 100,000/kg.

Labor income for plastic packaged ground coffee is obtained from the labor coefficient multiplied by the direct labor wage, which is Rp 12,900 for robusta ground coffee production with a percentage of labor compensation to the added

value of 77.69%. Meanwhile, for labeled ground coffee packaging, the labor income is IDR 30,000.00 with the percentage of labor rewards amounting to 67.76%.

The added value minus the labor reward will determine the profit earned by UD. Bang Moel Coffee. UD. Bang Moel Kopi gets a profit from plastic packaging ground coffee of IDR 3,703 or 5.14% and a profit from labeled packaging of IDR 44,226 or 44.27% if in percentage. This profit is the total profit of 1 month of robusta coffee production. The low profit obtained by UD. Bang Moel Coffee is influenced by high labor costs, in addition to the amount of other donation costs in the production process and the price of raw materials which are classified as expensive at Rp 55,000 / kg, thus affecting the low value added and profits obtained by this agroindustry.

The results of this value-added analysis can also show the margin from coffee bean raw materials to robusta ground coffee which is distributed to labor remuneration, other input contributions, and company profits. This margin is the difference between the value of the product and the price of raw materials per kilogram. Each processing of 10 kg of raw materials into robusta ground coffee obtained a margin on plastic packaging of Rp 17,000, which was distributed in percentage to each labor factor, namely labor income of 75.88%, other input contributions of 2.33%, and company profits of 21.78%. Meanwhile, the labeled packaging obtained a margin of Rp 45,000, which when percented for each labor factor, namely labor income of 66.67%, other input contributions of 1.62%, and company profits of 98.28% (Idsan, et al., 2020)

Processing as much as 7 kg / day of plastic packaging robusta coffee beans into ground coffee gets an additional value of Rp. 16,603 with a ratio of 23.06%, while for label packaging processing per day as much as 3 kg provides an added value of Rp. 44,271 with a ratio of 44.27%. which means that agro-industry will get added value of 23.06 for plastic packaging and 44.27 for label packaging for every Rp. 100.00 product value. This added value is lower than the robusta coffee agro-industry in Panawangan Coffee, which obtained an added value of Rp 59,648/kg per one production process (Supratman et al, 2020). However, the value-added ratio is still lower than the value-added ratio obtained by the Home Industry Putra Adira Cap Mahkota Rajoku with original coffee value added reaching 82.174%

Based on the criteria according to Hayami, the added value> 0, which means that the development of coffee bean agro-industry into robusta ground coffee provides positive added value. Meanwhile, according to Rahmawati (2019), the value-added ratio is said to be moderate if the value-added ratio owned is between 15-40% so that the value-added ratio of the Bang Moel Kopi home industry is in the category of moderate value-added ratio for plastic packaging because it has a percentage between 15-40%, the same is the case with the ratio of added value generated still at UD Lapang which is still relatively low (Simatupang, et al., 2022) . While for label packaging it is in a high value-added ratio position, namely >40%. This is in line with the research of Simatupang (2022), Puryantoro (2021), Idsan et al (2020), Susanto et al (2022), Martiningsih, et al., 2023), Yusuf & Septiadi (2023) and Putra (2020) that agro-industry gets a medium to high value-added ratio because it has a percentage of 15-40% and > 40%.

CONCLUSION

The development of Bang Moel Kopi robusta coffee household industry has very good prospects for business actors because of the high added value obtained from this business which reaches 15-40% for plastic packaging and >40% of labeled packaging.

REFERENCE

Adisetya, E., 2022. Rantai Pasok Agroindustri Berbasis *Blockhain*: Harapan dan Tantangan. *yntax Literate ; Jurnal Ilmiah Indonesia*, 7 (1), 198.

Alfiyah, S., Untari, W. S., & Puryantoro, P. (2024, August). Analisis pendapatan dan kelayakan usaha kopi bubuk robusta pada industri rumah tangga bang. moel kopi Desa Mangli Wetan Kecamatan Tapen Kabupaten Bondowoso. In *prosiding seminar nasional unars* (vol. 3, No. 1, pp. 270-276).

dos Santos, É. M., de Macedo, L. M., Tundisi, L. L., Ataide, J. A., Camargo, G. A., Alves, R. C., ... & Mazzola, P. G. (2021). Coffee by-products in topical formulations: A review. *Trends in Food Science & Technology*, *111*, 280-291.

Hayami, Yujiro, Toshihiko Kawagoe, Yoshinori Marooka, and Masjidin Siregar. 1987. *Agricultural Marketing and Processing in Unpland Java A Perspective From A Sunda Village.* Bogor. : Indonesia ESCAP-CGPRT Centre, Bogor.

Idsan, R. S., Taib, G., & Hadiguna, R. A. (2020). Analisis nilai tambah kopi robusta pada home industry putra adira cap mahkota rajoku di kabupaten kepahiang value added analysis robusta coffee in Home Industry Putra Adira Cap Mahkota Rajoku in Kepahiang Regency. *Jurnal Agroindustri Vol*, *10*(2), 88-98.https://ejournal.unib.ac.id./index.php/agroindustri.

Martiningsih, N. G. A. G. E., Susanti, I. A. M. D., & Edo, F. N. (2023). Analisis Nilai Tambah Pengolahan Kopi Robusta di Ud. Cipta Lestari Desa Pujungan Kecamatan Pupuan Kabupaten Tabanan. *Jurnal MeA (Media Agribisnis)*, *8*(2), 168-173.

Puryantoro. 2021. Analisis Nilai Tambah Pengolahan Kopi Arabika Di Kelompok Tani Sejahtera Kabupaten Situbondo. Jurnal Ilmiah Membangun Desa dan Pertanian, 6(1), 1-6.

Putra, 2020. Analisis Pendapatan dan Nilai Tambah Industri Pengolahan Kopi : Pendekatan Metode Hayami. Indonesian Journal of Develoment Economics. 3 (3). https://journal.unnes.ac.id/sju/index.php/efficient.

Rahmawati, R., T., Soedarto, dan E. Nurhadi. 2019. Pengolahan Kopi Dan Analisis Nilai Tambah Kopi Robusta Di Kecamatan Tutur Kabupaten Pasuruan. Berkala Ilmiah Agribisnis AGRIDEVINA 8 (2): 135–44.

Simatupang, Aditia Erick Cantona, Jones T Simatupang dan Prandes Timbul Soh S Berutu. 2022. Analisis Nilai Tambah Dan Strategi Pengembangan Agroindustri Kopi Bubuk Robusta. *Jurnal Method Agro* 8(1): 67-76.

Statistik, B. P. 2022. Provinsi Jawa Timur dalam Angka 2020. Badan Pusat Statistik Provinsi Jawa Timur.

Statistik, B. P. 2023. Produksi Perkebunan Tanaman Kopi. Badan Pusat Statistik Provinsi Jawa Timur.

Supratman, M. E., Noor, T. I., & Yusuf, M. N. (2020). Analisis nilai tambah agroindustri pengolahan kopi robusta (studi kasus pada agroindustri panawangan coffee di desa sagalaherang kecamatan panawangan kabupaten ciamis). *Jurnal Ilmiah Mahasiswa AGROINFO GALUH*, *7*(2), 436-440.

Yusuf, M., & Septiadi, D. (2023) Investigasi Nilai Tambah Agroindustri Kopi Robusta di Kecamatan Batukliang Utara Kabupaten Lombok Tengah. *EDUFORTECH*, *8*(1), 17-24.