Financial Feasibility Analysis of Durian Fruit Business *(Durio zibethinus)*
(Case Study in Source Sumber Hamlet Wonosalam Village Wonosalam District Jombang Regency)

Afrina Hidayatul Arifah[1], Mazidatul Faizah[2*]
[1] Agribusiness, Universitas KH. A. Wahab Hasbullah
[2] Agroecotechnology, Universitas KH. A. Wahab Hasbullah
[*]Email:mazidatulfaizah@unwaha.ac.id

ABSTRACT

Research Objectives (1). Knowing the income level of durian farming in Sumber Village, Kec. Wonosalam, (2). Knowing the financial feasibility of durian farming in Sumber Village, Kec. Wonosalam in terms of B/C ratio. This research was conducted in Sumber Hamlet, Wonosalam Village, Wonosalam District, Jombang Regency. (1). The total cost of the durian fruit farming analysis on average is Rp. 62,109,925/Ha/Year, the average durian fruit farming revenue is Rp. 64,175,000/Ha/Year, and the average income earned by farmers is Rp. 90,181,575/Ha/Year. (2). R/C Ratio of 2.4. (3). B/C Ratio of 1.4. In Sumber Hamlet, Wonosalam Village, Wonosalam District, there are 32 residents who have land planted with durian trees with an area of <5000 m2, so the respondents who were taken in this study were only 4 people. With the consideration of these 4 people, the land area is > 5000 m2. (1). The total cost of the durian fruit farming analysis on average is Rp. 62,109,925/Ha/Year, the average durian fruit farming revenue is Rp. 64,175,000/Ha/Year, and the average income earned by farmers is Rp. 90,181,575/Ha/Year. (2). R/C Ratio of 2.4. (3). B/C Ratio of 1.4. In Sumber Hamlet, Wonosalam Village, Wonosalam District, there are 32 residents who have land planted with durian trees with an area of <5000 m2, so the respondents who were taken in this study were only 4 people. With the consideration of these 4 people, the land area is > 5000 m2.

***Keywords**: Durian Fruit Farming; Revenue; Income; B/C Ratio.*

INTRODUCTION

Indonesia is a country rich in natural resources. Natural wealth in Indonesia has various types ranging from types of natural resources that cannot be renew such as the existence of a mine or renewable natural resources such as plant and animal diversity. The natural wealth in use it as much as possible for the prosperity of the people as stated in The constitution 45 article 33 paragraph (3) which reads earth, water and wealth The nature contained in it is controlled by the state and used for actually the prosperity of the people. One of natural resources is the presence of biodiversity in the form of fruit-producing plants that can grow in Indonesia. (Setiaji Laksono, 2014).

Horticultural products are forward-looking products that must not only meet the needs of the domestic market, but also meet the needs of the international market (Chusnah et al, 2021). Domestic and international market demand is still large. In addition, these products also have a high economic value. Economic progress has led to an increase in the demand for horticultural products (Chusnah, 2019). On the other hand, the diversity of land characteristics, agro-climatic and wide geographical distribution makes Indonesia suitable for tropical and subtropical horticulture development. According to FAO data, the world trade in tropical fruit continues to increase (Zuhria et al, 2017). Indonesia is one of the tropical fruit-producing countries, compared to other tropical fruit-producing countries, it has a fairly good variety and superior taste. The production of tropical fruits in the archipelago is increasing from year to year. Fruit production in 2007. Indonesia 17,116,622 tons, 2008 production was 17,831,252 tons, an increase of about 4.18% . (Ministry of Agriculture, 2009 in Silvana Maulidah 2010).

Durian (Durio zibethinus Murr.) is a tree-shaped fruit tree. This word is believed to come from the Malay language, namely from the word "duri", the ending is "-an", so it becomes durian. The term is mainly used to refer to fruits with spikes. Durian is often called the king of fruits and is very popular in

Indonesia. Durian fruit has a high protein content and high nutritional value. In Indonesia, durian fruit is not only eaten as fresh fruit, but also can be processed into various types of processed durian dishes, such as ice cream, durian cake, sliced durian seeds, durian dumplings, durian pancakes, durian compote, etc. It is said that the calculation of the cost of production of the business is calculated carefully in order to obtain the maximum profit and efficiency of the cost components in its business activities. (Sunarjono, 2008 in *Aisyah et al, 2018*).

A number of tourist areas in Wonosalam District, Jombang Regency, are the main attraction for tourists. One of the attractions of Wonosalam District is the durian fruit. For durian lovers, Wonosalam is familiar to the ears, so that when harvest time arrives, they will enjoy the fruit as well as travel to enjoy its natural beauty. In Wonosalam there are various types of durian. Starting from Durian Montong, Musang King, to Wonosalam's mainstay, Durian Bido. For the price of Durian Bido, it starts from Rp. 50,000 to Rp. 200,000/seed depending on the type and weight of the fruit.

The aims of this research are: (1)Knowing the income level of durian farming in Sumber Source, Kec. Wonosalam., (2) Knowing the financial feasibility of durian farming in Sumber Source, Kec. Wonosalam in terms of B/C ratio.

METHOD
- **Place and time of research**

This research was conducted in Sumber Hamlet, Wonosalam Village, Wonosalam District, Jombang Regency. The location of this research was chosen intentionally (purposive sampling) because, in Sumber Hamlet, Wonosalam Village, Wonosalam District, there are 32 residents who have land planted with durian trees with an area of <5000 m2, so the respondents who were taken in this study were only 4 people. . With the consideration of these 4 people, the land area can be seen in the table.

Table 1. List of Names of Durian Fruit Farmers in Sumber Hamlet

No.	Name	Land area
1.	Tri Agung Rozikin	1 Ha
2.	Ruslan	2 Ha
3.	Saddam	6,000 m^2
4.	Suyitno	1.6 Ha

- **Data Types and Sources**
  - Primary data

    Primary data is data obtained from the research location, from observations, and interviews with sample farmers guided by a list of questions (questionnaires) that have been prepared in advance.
  - Secondary Data

    Secondary data is data obtained in a systematic form, which has been processed and published. This data is in the form of monthly, semester, or annual report books and other documentary materials.

- **Data Collection Method**

  Data collection methods are carried out in the following way:
  - Interview

    Interviews are data collection techniques carried out by means of face-to-face and direct questions and answers between the person conducting the research and the relevant resource person aiming to obtain data that is in accordance with the research.
  - Observation

    Observation is a complex method of collecting data by involving factors in its implementation. Observational data collection is done by looking directly at things related to research.
  - Documentation

    Documentation carried out by researchers to obtain images related to activities carried out by farmers regarding durian fruit production activities.

The data analysis conducted in this study was based on a quantitative approach. Quantitative analysis is used for data in the form of numbers so as to facilitate conclusions from the research objectives.

- **Production Cost Analysis**

    It is said that the calculation of the cost of production of the business is calculated carefully in order to obtain the maximum profit and efficiency of the cost components in its business activities. (Arianta, 2017).

    ➢ **Production cost**

    The calculation of production costs is formulated as follows:

    $$TC = TFC + TVC$$

    Information:
    TC = Total Cost (total cost)
    TFC = Total Fixed Cost (total fixed cost)
    TVC = Total Variable Cost (total variable cost)

    ➢ **Acceptance Analysis**

    Agricultural income is the product of the output obtained and the selling price. Production costs are an important part of the production budget used for operational costs and are needed as long as the business is still running. The success of the business depends on the costs incurred. Production costs support all existing activities because they are related to crop productivity and farmer profits. In addition, planting costs must also be considered because the costs incurred will affect farmers' income.

    Calculation of farm income can be formulated as follows:

    $$TR = P \times Q$$

    Information:
    TR = Total Revenue (total revenue)
    P = Price (price of durian fruit per kg)
    Q = Quantity (number of production)

    ➢ **Income Analysis**

    In microeconomic theory, income comes from the acquisition of production factors or the cost of productive services. This understanding shows that income is all the costs of factors of production and the total output of all production in an economy in a certain period of time. The formula:

    $$\pi = TR - TC$$

    Information:
    π = farm income or profit
    TR = Total Revenue (total revenue)
    TC = Total Cost (total cost)

- **Financial Eligibility**

    ➢ R/C Ratio

    According to Suratiyah (2015), R/C is a comparison between revenue and total costs.

    $$R/C = \frac{Total\ Revenue\ (TR)}{Total\ Cost\ (TC)}$$

    Where :
    Revenue = The amount of revenue obtained
    Cost = Amount of costs incurred
    There are three criteria in the calculation, namely:
    - If the R/C > 1 means that the farm is profitable.
    - If R/C = 1, it means that the farm is breaking even.
    - If R/C < 1, it means that the farm is losing. (*Didin Saadudin et al*).

    ➢ B/C Ratio

    For the analysis of financial feasibility, the B/C ratio is used, the B/C ratio can be interpreted as the net benefit that benefits the business/business generated for each unit of loss

from the business/business. The results of this data analysis will be presented in tabular form and then described. B/C ratio can be analyzed using the formula:

B/C *ratio* =

$$\frac{\text{Keuntungan Bersih (Rp)}}{\text{Total Biaya Produksi (Rp)}}$$

The following are the assessment criteria for the B/C ratio:
- − If the B/C ratio is > 1, then the business is feasible to develop
- − If the value of B/C ratio = 1, then the business is still feasible to develop
- − If the B/C ratio is < 1, then the business is not feasible to develop

RESULT AND DISCUSSION
Result

The results of the feasibility analysis (R/C –Ratio) show that Durian Fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible and the result 2,4 are valid because more than 1. The results of the feasibility analysis (B/C –Ratio) indicate that durian fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible to be developed and the result 1,4 are valid because more than 1.

Discussion
- **Geographical Circumstances**

   The village that became the object of research was Sumber Hamlet, Wonosalam Village, Wonosalam District, Jombang Regency. This village is located in the north of Mojowarno Village, bordered by Bareng Village in the south, on the west by Galungdowo Village, and on the east by Jabung Village. Located 2 Km to the center of the District office. Capital / city distance is 30 Km. From Wonosalam District to Wonosalam Village, it can be reached by two-wheeled or four-wheeled vehicles via paved roads. The paved road is only on the road to Wonosalam Village, and the road to the small inland village has not been paved only with gravel.

   Wonosalam Village consists of 9 small villages with an area of 13,905,075 Ha, 61 of which include rice fields, fields, houses, roads, graves, plantations and other public facilities. Almost all of the land in this village is fertile land but rarely irrigated. This village area is located in the highlands with small hills inhabited by residents, between the hills are agricultural land or community plantations, in the form of very dry land. This land is where people carry out agricultural activities or as plantations for the main livelihood of the Wonosalam Village residents. The climate of Wonosalam Village is tropical, and there are two seasons, namely: the rainy season and the dry season.

   In the rainy season this area is quite comfortable for residents, because the rain water can be used by residents. The main livelihoods are agricultural and plantation activities. In the rainy season, springs gushing from the mountain are very abundant, which can make it easier for residents to get clean water as their daily needs. However, during the dry season, the community starts to lack water and many farms fail, many wells dry up, when this happens in general, people rely on their lives to get clean water by alternating from the mountains to the village. Each small village only has 3 hours of clean water every day. The dry season is a difficult time for the people of Wonosalam Village. Due to lack of water, many agricultural companies have closed. The long awaited rain never falls.
- **Respondent Identity**

   The identity of the respondent is a general description, the background of agricultural activities is influenced by many factors, such as the age of the farmer, farming experience, and land area.
   - ➢ **Age**

      Age has a relationship between a person's responsibility to the supply of labor. The older a person is, the greater the employment opportunities. As long as they are of productive age, the older a person gets, the greater the responsibility, although at a certain point the supply will decrease with age which will continue to grow . (Retno Febriyastuti, 2013). For the age of durian fruit farmers can be seen in table 2.

Table 2. Number and Percentage of Respondents of Durian Fruit Farmers by Age Group in Sumber Hamlet

No	Age group (years)	Number of Farmers	Percentage (%)
1.	30 – 40	2	50%
2.	41 – 50	-	-
3.	51 – 60	1	25%
4.	61 – 70	1	25%
	Amount	**4**	**100%**

From table 1 it is known that the age range of farmers is between 30 - 70 years where the highest percentage of age is farmers aged 30 - 40 years, namely 2 people with a percentage of 50%, and at the age of 41 - 50 years, namely 0, and at the age of 51 - 60 years as many as 1 person with a percentage of 20%, and at the age of 61 - 70 years as many as 1 person with a percentage of 20%.

➢ **Level of education**

That in the education process, there is a learning and learning process, so that in education it is clear that there is a process of forming more human beings. The process of educating and being educated is an act that is fundamental (fundamental), because in it there are processes and actions that change and determine the way of human life. (made mahesa mahendra, nd) Viewed from the formal education of farmers, the data obtained from the level of education of farmers in table 3.

Table 3. Number and Percentage of Respondents of Durian Fruit Farmers by Education Level Group in Sumber Hamlet

No	Level of education	Number of Farmers (person)	Percentage (%)
1.	SD	2	50%
2.	junior high school	1	25%
3.	senior High School	1	25%
	Amount	**4**	**100%**

For education, it is known that none of the farmers are illiterate, because all of them have attended formal school, but the education level of the majority are elementary school graduates, junior high school graduates, and high school graduates. Based on table 2, it can be seen that 50% of farmers who graduated from elementary school. 25% of farmers who graduated from junior high school. 25% of farmers who graduated from high school. The level of education of farmers at most elementary school graduates is 50%. This means that the level of education of farmers in Sumber Hamlet is relatively low. The low level of education affects the development of farming businesses.

➢ **Number of Family Dependents**

Is the number of members whose living expenses are borne by the head of the family which consists of the farmer himself as the head of the family, wife, children, etc. The number of dependents of durian fruit farmer families can be seen in table 4.

Table 4. Number and Percentage of Durian Fruit Farmers Based on Number of Family Dependents in Sumber Hamlet

No	Number of Family Dependents (person)	Number of Farmers (person)	Percentage
1.	2 – 4	2	50%
2.	5 – 7	2	50%
	Amount	**4**	**100%**

The number of family dependents referred to in this study are all people who live under one roof or one house whose needs are the responsibility of the head of the family or farmer. The size of the number of family members in one house shows the size of the burden that must be borne by the head of the family or farmer.

➢ **Business Experience**

Business experience can be obtained from guidance from childhood taught by people who are entrepreneurs by profession or from experience working in an entrepreneurial organization. Experience can be seen its influence on business success. What is meant by experience here is

whether or not an entrepreneur was involved in the processing of a similar business before starting his own business. (Sri Wahyuni, 2019) For more details about the experience of farming can be seen in table 5.

Table 5. Number and Percentage of Durian Fruit Farmers Based on Business Experience Groups in Sumber Hamlet

No	Business Experience (years)	Number of Farmers (person)	Percentage
1.	1 -10	2	50%
2.	11 – 20	2	50%
	Amount	**4**	**100%**

The length of business referred to in this study is the length of time farmers in durian fruit cultivation are expressed in years. The length of the effort affects the ideas of farmers in making important decisions in durian fruit farming. From the table above, the experience of farming is balanced. And from the table above, the business experience of farmers for 1-10 years is 2 people or 50% and 11-20 years as many as 2 people or 50%.

- **Production Cost Analysis**

  The calculation of production costs carried out in this business is said to have been carefully calculated in order to get maximum profit and efficiency of cost components in its business activities. (Arianta, 2017).

  ➢ **Variable Cost**

    Variable costs are costs that change in proportion to changes in the volume of activity. (*Winarko et al, 2018*). The amount of variable costs used in durian fruit farming in the research area is presented in the following table.

Table 6. Frequency DistributionFarmers Based on Variable Costs in Durian Fruit Farming in Sumber Hamlet

No	Cost breakdown	Variable Cost (Rp)
1.	Labor	2,030,000
2.	Transportation	2,700,000
3.	Drugs	16,994,000
4.	Fertilizer	52,263,800
	Amount	**73,987,800**

From Table 6 it is known that for variable costs in durian fruit farming, the largest cost is the cost of fertilizer, which is Rp 52,263,800. This variable cost includes the cost of raw materials for a production/business. The greater the volume of a business, the greater the costs that must be spent.

➢ **Fixed cost**

  Fixed costs (fixed costs) are production costs whose size is not affected by the volume of production and the results do not run out in a short period of time one growing season. (*Saadudin et al, 2017*). Fixed costs in durian fruit farming are depreciation of tools consisting of hoes, sickles, gamans, sprays, and tripe machines. In the depreciation of tools, the calculation is carried out using the straight-line method of depreciation formula, namely the initial value minus the final value divided by the economic value of the tool times the service life of the tool times the number of tools, where in the use of this calculation method it is assumed that at a certain economic age the tool is considered to have no value. remainder. To determine the economic age is based on the durability of the tool and the use of the tool.The amount of fixed costs used in durian fruit farming is presented in Table 7 below.

Table 7. Farmer Frequency Distribution Based on Fixed Costs in Durian Fruit Farming in Sumber Hamlet

No	Cost of depreciation	Land Rental Fee	Fixed cost
1.	2,888,500	53,000,000	55,888,500

From Table 7 it is known that the fixed costs of durian fruit farming include depreciation costs for tools (hoe, sickle, gaman, spray, and tripe machine) and land rent. Fixed costs are not

affected by changes in operating activities to a certain extent, conditions which are in accordance with the available capacity.We will still spend these costs even if we do not do any activities or even when we do very many activities.

➢ **Total Cost**

Total Cost (Total Cost) is the total cost of money spent during the production process, both fixed and variable costs.

Table 8. Farmer Frequency Distribution Based on Total Cost of Durian Fruit Farming in Sumber Hamlet.

No	Cost breakdown	Cost (Rp)
1.	Fixed cost	55,888,500
2.	Variable Cost	73,987,800
Amount		**129,876,300**

From Table 8 it is known that the total cost required for the implementation of durian fruit farming is different for each farmer. The total cost is all the production costs needed, but of the two production costs, the variable costs are very large, indicating that the variable costs are the costs of raw materials for a business.

- **Acceptance Analysis**

Farming revenue is the multiplication between the production obtained and the selling price. Production costs are part of the important production budget that is spent on operational costs and is needed as long as the business is still ongoing. Smooth or not a business depends on the costs incurred, the cost of production as a support for all existing activities because it relates to crop productivity and profits for farmers, besides the costs that are cultivated must also be taken into account, because the costs incurred will affect the income to be received by farmers. For the research area, the selling price of durian fruit is between Rp. 50,000 – Rp. 75,000.00- per kg. From the results of the analysis in the research area, the average acceptance of farmers in durian fruit farming is 242.300.000.

- **Income Analysis**

According to Sadono Sukirno in microeconomic theory that income is the acquisition that comes from the costs of production factors or productive services. This understanding shows that income is all acquisitions both derived from the cost of production factors and the total output produced for all production in an economy within a certain period of time. The income earned on durian fruit farming is presented in Table 9.

Table 9. Income from Durian Fruit Farming in Sumber Hamlet in 2021

No	Income	Total
1.	Total Receipt	256,700,000
2.	Total Cost	129,876,300
Amount		**386,576,300**

From Table 9 it is known that the income from durian fruit farming is different between farmers, so it is evident that a large income is always followed by the income to be obtained from a business that will also be large, because the total cost can be reduced.

- **Business Feasibility Analysis**

➢ **R/C Ratio**

Based on the results of the analysis of the calculation obtained the feasibility level of durian fruit farming in the Sumber Hamlet, Wonosalam Village, Wonosalam District, which is 2,466. The results of the R/C Ratio show that durian fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible to cultivate.

➢ **B/C Ratio**

Based on the results of the analysis of the calculations above, the feasibility level of durian fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is 1.466. The results of the B/C Ratio show that durian fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible.

CONCLUSION

There are conclution for the research:

- The results of the income analysis show that the total profit from Durian Fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District within one year is Rp. 360,726,300 within one year.
- The results of the feasibility analysis (R/C –Ratio) show that Durian Fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible.
- The results of the feasibility analysis (B/C –Ratio) indicate that durian fruit farming in Sumber Hamlet, Wonosalam Village, Wonosalam District is feasible to be developed.
- Durian fruit farming has great business opportunities to be developed, therefore farmers should be able to maximize durian fruit farming apart from other businesses because it can generate high income and make a large contribution to the total in come of farmer's households. And there needs to be attention from the local government so that farming managed by farmers can be even better.

REFERENCES

Aisyah, T. N., Weka, G. A., & Ilma, S. R. (2018). Analisis Kelayakan Usaha Pembibitan Tanaman Durian Pada UD.Bayu Wira Tama Di Kecamatan Ranomeeto Kabupaten Konawe Selatan. *Jurnal Ilmiah Agribisnis,* 3(5), 110–15.

Arianta, K. D., Anantawikrama, T. A., & Ni Luh, G. E. S. (2017). *Analisis Perhitungan Biaya Produksi Pada Usaha Mikro, Kecil, Dan Menengah Jajanan Cita Rasa Khas Bali (Studi Kasus UD. Sari Artha Kue, Kec. Banjar, Kab. Buleleng),* 8(2), 26-32.

Chusnah, M. (2019). Keunggulan Durian Bido Dalam Pengembangan Agrowisata Durian Wonosalam Jombang. *Agrosaintifika,* 2(2), 103-111.

Chusnah, M., Puspaningrum, Y., Chumaidi, M., & Ismianah, N. (2021). Upaya Peningkatan Motivasi Kewirausahaan Pemuda Desa Kayen Melalui Pelatihan Produk Olahan Ubi Kayu. *Jumat Pertanian: Jurnal Pengabdian Masyarakat, 2*(2), 83-86.

Didin, S., Yus, R., Cecep P. *Analisis Biaya, Pendapatan Dan R/C Usahatani Jahe (Zingiber Officinale) (Suatu Kasus Di Desa Kertajaya Kecamatan Panawangan Kabupaten Ciamis),* 2(2), 1–7.

Made, M. M., I Gusti, A. K. S. A. *Pengaruh Umur, Pendidikan Dan Pendapatan Terhadap Niat Beli Konsumen Pada Produk Kosmetik The Body Shop Di Kota Denpasar,* 3(2), 442–56.

Retno, F., Arif, P. (2013). *Pengaruh Umur, Jumlah Tanggungan Keluarga, Luas Lahan, Jarak Tempat Tinggal, Pekerja Ke Tempat Kerja, Dan Keuntungan Terhadap Curahan Waktu Kerja Wanita Tani Sektor Pertanian Di Desa Tajuk, Kec. Getasan, Kab. Semarang* 2(3), 34-38.

Saadudin, D., Yus, R., & Cecep, P. (2017). *Analisis Biaya, Pendapatan Dan R/C Usahatani Jahe (Zingiber Officinale). Jurnal Ilmiah Mahasiswa Agroinfo Galuh,* 3(2), 85-89.

Setiaji, L. (2014). *Kontribusi Usaha Tani Durian Terhadap Total Pendapatan Rumah Tangga Di Desa Alasmalang Kecamatan Kemranjen Kabupaten Banyumas.*

Silvana, M., Destyana, E. P. (2010). *Analisis Kelayakan Finansial Usahatani Anggur Prabu Bestari (Financial Feasibility Analysis Of Prabu Bestari Grapes Farming),* X(3), 1412–25.

Sri, W., Ari, P., & Wahyu, H. (2019). *Pengaruh Tingkat Pengalaman Berwirausaha, Produktivitas Dan Inovasi Terhadap Pengembangan Usaha Kulit Lumpia,* 01(02), 58–67.

Winarko., Sigit, P., & Puji, A. (2018). Analisis Cost-Volume-Profit Sebagai Alat Bantu Perencanaan Laba (Multi Produk) Pada Perusahaan Pia Latief Kediri . *Jurnal Nusantara Aplikasi Manajemen Bisnis,* 3(2), 9-14.

Zuhria, S. A., Djauhari, S., & Muhibuddin, A. (2017). Exploration and Antagonistic Test of Endophytic Fungi from Soybean (Glycine max L. Merr) With Different Resistance to Sclerotium rolfsii. *The Journal of Experimental Life Science, 6*(2), 101-105.