# Profitability and Feasibility Analysis of Adenium Ornamental Plant (Adenium Sp.) In Samarinda City

Abdul Rachim

"Agriculture Faculty, Mulawarman University, Samarinda, East Kalimantan, Indonesia Corresponding Author : Abdul Rachim

**Abstract-***This research aims The purpose of this research is to determine the level of business profitability adenium ornamental plants in Samarinda City and business feasibility of adenium ornamental plants in Samarinda City seen from profitability.* 

Date of Submission: 20-02-2023	Date of Acceptance: 03-03-2023

This research was carried out for 2 months starting from September to October 2021, with a research location in Samarinda City. Methods of data collection were carried out using primary and secondary data. Primary through questionnaires with respondents while secondary data using references in the form of related agencies and other literature. Sampling method, sampling in this study using the Purposive Sampling method (purposive sampling) which can be interpreted as sampling on purpose, namely the researcher took three ornamental plant entrepreneurs in Samarinda City. This is because the three entrepreneurs have knowledge about the cultivation of adenium ornamental plants, and from the beginning they have only focused on adenium ornamental plants. Data Analysis Method Profitability Analysis To determine the extent to which the adenium ornamental plant business in Samarinda City is profitable in terms of profitability, it can be formulated as follows. This analysis is used to measure the ability of ornamental plant entrepreneurs in Samarinda to return the investment invested within a certain time from the proceeds obtained by not paying attention to or including the value of money team element which can be formulated as follows: Net Present Value is one of the deep capital budgeting techniques. measure the profitability of project investment plans using the value of money. PI (profitability index) This analysis is used to measure the ability of ornamental plant entrepreneurs in Samarinda to return investments by taking into account net cash flow in the future in the present value of the receipt compared to the investment.

The results first respondent's profitability was 42.95%, the second respondent's profitability was 44.30% and the third respondent's profitability was 50.84%. When viewed from the three respondents, the level of profitability in one year is not maximal in returning the initial investment capital used. This is because the business of ornamental adenium plants has only been in the last year, so it needs to increase production more so that income is expected to increase. Business Feasibility Analysis from the financial aspect can be measured using financial analysis which includes Payback Period (PB) analysis, in Net Present Value (NPV). From the data processed in this study, Net Cash Flow or Proceeds were compiled from investments planted in the adenium ornamental plant business. less profitable when viewed from the Net Cash Flow. Of the three respondents, it can be seen that the first respondent has an NCF of Rp. 22,250,750, -/year, the second respondent has an NCF of Rp. 24,148,000, -/year and the second respondent has an NCF of Rp. 26,123,000, -/year. The third respondent is higher than the two respondents, this is because the level of income earned is greater and the equipment depreciation is also smaller than the two respondents. Where NCF itself is obtained from income assets added to depreciation of equipment for 1 year. The payback period analysis of this calculation is used to measure the ability of the three adenium ornamental plant entrepreneurs to return their investments within a certain period of time from proceeds obtained by not paying attention to or including the time value of money element. From the three respondents, it can be seen how long it took for each entrepreneur to return their initial investment. The Payback Period of the first respondent was 2 years and 2 months, where the first respondent was able to return the investment invested in the Adenium ornamental plant business for 2 years and 2 months. The second respondent Payback Period is 2 years, where the second respondent is able to return the investment invested in the Adenium ornamental plant business for 2 years and the third respondent Payback Period is 1 year 10 months, namely the third respondent is able to return the investment invested in the Adenium ornamental plant business for 1 year 10 months. The third respondent is quicker to return the investment invested in the adenium ornamental plant business, this is because the net cash flow generated is higher than the two respondents. Net Present Value (NPV) Analysis Net Present Value calculation is used to calculate the ability to return investments made in a business by calculating the time value of money at the 13.99% Discount Factor based on the SBI interest rate taken from April to July 2007 which can be seen in the Appendix 14. To determine the present value of Net Cash Flow received each year by calculation. Based on the calculation of the Net Present Value, the Net Present Value is positive for the first respondent, which is Rp. 1,659,584.28, where the NCF from the first year to the third year is the same as Rp. 22,250,750, - with a Discount Factor the first year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000,-. The second respondent has a positive Net Present Value of Rp. 6,064,411.60, where the NCF from the first year to the third year is the same as Rp. 24,148,000, - with a Discount Factor the first year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000, -. The third respondent has a positive Net Present Value of Rp. 10,649,769.10, where the first year to third year NCF are both Rp. 26,123,000, - with a Discount Factor the first year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000.-. If you look at the third respondent, it is bigger than the other respondents because the present value is bigger, namely Rp. 60,649,769.10 with an initial investment of Rp. 50.000.000,-. Analysis of Profitability Index (PI) is used to measure the ability to return on investment by calculating the Net Cash Flow in the future in the present value (present value) of income compared to investment. The Profitability Index (PI) shows that there is more than one investment made by adenium ornamental plant entrepreneurs in Samarinda City, so it can be concluded that the investment is feasible. The first respondent was Rp. 1.03, where the ability to return on investment as measured by Net Cash Flow in the future is in present value. The second respondent is Rp. 1.12, where the ability to return on investment as measured by Net Cash Flow in the future is in present value and the third respondent's Profitability Index is Rp. 1.21. When viewed from the three respondents or ornamental plant entrepreneurs, it can be said that it is feasible to cultivate, this is because if the Profitability Index is greater than 1 then it is said to be feasible. The greater the Profitability Index, the more feasible the effort is to be developed. From the three respondents it can be seen that the Profitability Index can still continue to increase because these three respondents have just started their business for 1 year.

# I. INDTRODUCTION

#### 1. Background

Adenium plants are commercially cultivated on a small, medium to large scale. Currently, most of the adenium ornamental plant entrepreneurs in Samarinda still bring in seeds from outside East Kalimantan, namely Java Island, including Jakarta, Bogor, Depok, Tangerang, Bekasi, Central Java and East Java.

The provision of adenium ornamental plants in Samarinda City is inseparable from the role of adenium ornamental plant entrepreneurs. There are around 10 to 20 ornamental plant entrepreneurs in Samarinda City, but only three entrepreneurs are focused and serious about cultivating adenium ornamental plants in Samarinda City. The initial capital required for the three entrepreneurs is approximately Rp. 50 million, the use of this capital is needed to rent land, production inputs and others. The income received by adenium ornamental plant entrepreneurs in Samarinda City varies greatly depending on the level of sales each month and the strategic location also determines the price of the adenium itself, while the adenium ornamental plant has become popular in Samarinda City in the last year or so.

Based on the description above, the authors are interested in conducting research with the title "Analysis of Profitability and Business Feasibility of Adenium Ornamental Plants (*Adeniumsp.*) in Samarinda City".

#### 2. Formulation of the problem

The problems that can be raised are:

- 1. What is the level of profitability of the adenium ornamental plant business in SamarindaCity.
- 2. How is the feasibility of adenium ornamental plant business in Samarinda City in terms of profitability

#### 3. Research purposes

The aims of this study were to find out:

- 1. The level of business profitability of adenium ornamental plants in Samarinda City.
- 2. The feasibility of adenium ornamental plant business in Samarinda City is seen from its profitability.

#### 4. Benefits of research

The benefits of this research are:

- 1. Contribute information, thoughts and considerations to ornamental plant entrepreneurs in carrying out their business.
- 2. As a contribution of thought to related agencies in making policies and decisions regarding the matter.
- 3. As information material and even comparison for other researchers who will examine this issue further.

# **II. RESEARCH METHODS**

# 1. Planning

This research was carried out for 2 months starting from September to October 2021, with a research location in Samarinda City.

# 2. Data Collection Method

Collectionwas carried out using primary and secondary data. Primary through questionnaires with respondents while secondary data using references in the form of related agencies and other literature.

# 3. Sampling Method

Sampling in this study used the *Purposive Sampling* (purposive sampling) which can be interpreted as intentional sampling, in which researchers took three ornamental plant entrepreneurs in Samarinda City. This is because the three entrepreneurs have knowledge about the cultivation of adenium ornamental plants, and from the beginning they have only focused on adenium ornamental plants.

# 4. Data Analysis Method

# **Profitability Analysis**

To find out to what extent the adenium ornamental plant business in Samarinda City is profitable in terms of profitability, it can be formulated as follows

# Investment Criteria Analysis

To determine the feasibility of investing in adenium ornamental plant business in Samarinda City, the following analysis is used:

#### Payback Period

This analysis is used to measure the ability of ornamental plant entrepreneurs in Samarinda to return invested investments within a certain time from *proceeds* obtained by not paying attention to or including the value of money team which can be formulated as follows:

Net Present Value

Net Present Value is one of the capital budgeting techniques in measuring the profitability of project investment plans using the value of money

PI (ProfitabilityIndex)

This analysis is used to measure the ability of ornamental plant entrepreneurs in Samarinda to return investments by taking into account the net cash flow in the future in the present value of revenue compared to investment which can be formulated as follows

# 1. Profitability Analysis

# III. RESULTS AND DISCUSSION

Based on the description above and based on the data and information collected from the three adenium ornamental plant entrepreneurs by calculating the profitability that can be achieved to support the analysis, the results achieved and costs are first detailed. costs incurred by the three adenium plant entrepreneurs in Samarinda City.

#### 2. Breakdown of Production

Costs The costs incurred for 1 year from the three adenium ornamental plant entrepreneurs are fertilizer costs, pesticide costs, planting media costs, polybag costs, pot costs, equipment depreciation costs, shipping costs, transportation costs, labor costs and electricity costs .

#### Fertilizer costs and pesticide costs

In the use of fertilizers and pesticides from adenium ornamental plant entrepreneurs are relatively the same, as well as the prices of fertilizers and pesticides purchased from the local market in Samarinda. Fertilizer costs and pesticide costs are incurred to purchase several types of fertilizers and pesticides.first respondent used *growmore, liquinox* and *decaster*. Fertilization is done once a semester or twice a year, this is because Adenium ornamental plants do not require intensive care like other ornamental plants. Fertilizer costs incurred by the first respondent amounted to Rp. 85,000,-/year, while the cost of pesticides is Rp.96,000,-/year. The types of pesticides used are *furadan 3G*, the pests that attack are larvae. These larvae attack the leaves so that the leaves become damaged, while the disease that attacks is stem/stump rot. Respondents for the two types of fertilizer used were *growmore, liquinox decaster* amount of Rp. 125.000,-/year and the types of pesticides used are *growmore, liquinox*, *progibb* and *antonic* amount of Rp. 165,000, -/year and the types of pesticides used are *benlate, dithane, confidos* and *furadan* of Rp. 290,000,-/year. The third respondent is

the entrepreneur who is the highest in incurring costs for fertilizers and pesticides because there are more types of fertilizers and pesticides than the two respondents.

#### **Planting media**

CostsPlanting media costs are incurred to buy planting media in the form of poor sand, cocopeat, roasted husks and manure. The use of planting media is used to replace damaged or no longer good planting media and also for new Adenium ornamental plants. The amount of planting media used by each respondent was relatively the same, as well as the costs incurred for purchasing the planting media. The first respondent spent Rp. 1.150.000,-/year. For self-use size adjusted to the size of Adenium ornamental plants filled in pots and polybags. The second respondent spent Rp. 1.600.000,-/year. The planting media is purchased from a local market which specifically sells planting media for ornamental plants, but some are imported from the island of Java, for example, Malang sand, which costs Rp. 30.000,- to Rp.50.000,-/sack. The third respondent spent Rp. 1.150.000,-/year. The highest respondent in spending on planting media is the second respondent, this is because the level of use of planting media is quite large. Many of the planting media has been damaged so it must be replaced with a new one.

#### Polybag costs and pot costs Polybag and pot

Costs are incurred to buy polybags and pots, namely at the time of ordering from the manufacturer, polybags and pots are not provided. Polybags are given to adenium ornamental plants which are classified as still small or are in the nursery process. While the pot itself is used for adenium ornamental plants that are already large and are usually ready to be marketed to consumers. There is a measure of plant height or commonly called *grade*, entrepreneurs have four *grades* for each adenium plant, namely *grade* A (2-5 cm), *grade* B (6-9 cm), *grade* C (10-13 cm) and *grade* D (14 cm). to the top).

The size of the pot is also adjusted to the size of the adenium ornamental plant. For example*grade* A, the size of the pot is 8 x 7 cm. These pots are made of plastic, but there are also pots made of cement, but they are relatively small. This cement pot is used for adenium ornamental plants which have a high selling value with a unique shape. The first respondent paid a polybag fee of Rp. 1,800,000, -/year, and for the pot fee of Rp. 1,676,250, -/year, the second respondent for a polybag fee of Rp. 2,250,000, -/year and a pot fee of Rp. 869,000,-/year. The third respondent paid a polybag fee of Rp. 3,000,000, -/year and a pot fee of Rp. 2,252,000,-/year. The third respondent has to bear the cost of polybags and pots, this is because the number of adenium ornamental plants is relatively large, so the use of polybags and pots is also large

# **Equipment depreciation**

CostsThe calculated equipment depreciation costs include; water pumps, hoes, knives, fangs, sprayers, lights, canopy, pot racks and reservoirs. Overall the cost of depreciation of these tools is relatively small, this is because the technical life of these tools is also relatively durable, which is more than one year and judging by the nature of the origin of the Adenium ornamental plants, they do not really need special care compared to ornamental plants in general.

The first responders spent on buying buckets, fangs, knives, sprayers, pot racks and canopies. The canopy itself functions as a protector or cover when it rains, this capony is permanent, the materials used are iron, wood and plastic for the cover. The pot rack serves as a place for adenium ornamental plant pots and in addition to beautifying the placement of adenium ornamental plant pots as an attraction for consumers. The first respondent's depreciation fee is Rp. 774,875,-/year.

The second respondent spent money on buying buckets, fangs, knives, sprayers, pot racks, canopies, water pumps, lights and reservoirs. A water pump is used as a pumping device, because the water source uses a drilled well. Then it distributes it to a reservoir as a place to store water. Lights are also used as lighting at night, but these lights only illuminate places that are too dark and prevent things that are not desirable, such as theft. Equipment depreciation costs that must be issued amounting to Rp. 1,997,708.33/year.

The third respondent spent money on buying buckets, fangs, knives, sprayers, pot racks, canopies, water pumps, hoes and lights. The hoe is used to level the land where the business is located, because for placing the pot rack, the ground must be level. Equipment depreciation costs that must be issued amounting to Rp. 702,416.66/year. The second respondent is the highest in spending equipment depreciation costs, this is because the capony in the purchase price is Rp. 10,000,000, - so that when calculating the depreciation cost of Rp. 1,000,000,-/year with a technical age of 10 years. Therefore it affects the magnitude of the depreciation cost of the tool coupled with other tools.

#### Shipping costs and transportation costs

Adenium ornamental plants are purchased from areas outside Kalimantan, namely Java Island, especially Greater Jakarta, Central Java and East Java, and shipments are made by airplane cargo. The aircraft used varied from Adam Air, Mandala and others. Shipping is not by sea because it takes a long time and it is feared that the

condition of the adenium ornamental plants can be damaged. The first respondent sent a fee of Rp. 1,620,000, -/year, with 624 Adenium ornamental plants weighing 90 kilograms at a price of Rp. 18.000,-/kg. The second respondent sends a fee of Rp. 3,045,000, -/year with 675 Adenium ornamental plants weighing 150 kilograms at a price of Rp. 20.300,-/kg. The third respondent has a shipping fee of Rp. 7,920,000,-/year with 1,200 Adenium ornamental plants weighing 220 kilograms at a price of Rp.36,000,-/kg. The third respondent has to bear the largest shipping costs, this is because the third respondent orders adenium ornamental plants from Jabodetabek which is a farther distance compared to East Java and Central Java so that the cost of airplane cargo is also higher.

For transportation from Balikpapan to Samarinda, the first respondent paid a transportation fee of Rp. 600,000,-/year with two times of transportation. Transportation is carried out by truck with a one-way transportation fee of Rp. 300.000,-. The second respondent paid a transportation fee of Rp. 900,000, -/year with three transportation times and one transportation costs Rp. 300.000,-.

The third respondent paid a transportation fee of Rp. 1,000,000, -/year with five times of transportation and one transportation costs Rp. 200.000,-. The third respondent spent the most money, this was because the number of adenium ornamental plants was more, namely 1200 so that the transportation from Balikpapan to Samarinda was five times.

# Labor costs and electricity

Costs Labor costs are incurred to pay for family labor wages and wages for 1 year. The first respondent spent Rp. 7,200,000, -/year with a family workforce of one person. Family labor is valued at Rp. 600,000,-/month. Family workers are business owners of adenium ornamental plants, which do not employ hired labour. The second respondent spent Rp. 7,200,000, -/year with one hired worker. Workers are given wages of Rp. 600,000, -/month, where all production activities starting from seeding, fertilizing, caring, maintenance to marketing are carried out by hired labour. The third respondent paid wage labor costs of Rp. 19,200,000, -/year with a total wage workforce of two people. Production activities starting from seeding, fertilizing, caring, maintenance to marketing are carried out by hired labor, where wage labor for each person is paid Rp. 800,000/month. For the third respondent, the salary is quite large compared to the two respondents, so that the expenses incurred are also relatively large in financing wage labor.

Electricity is used as an energy source for lighting and to turn on the water pump, lighting in the form of lamps used at night. The function of the lamp itself is as a night light for adenium ornamental plants and avoids things that are not desirable, for example, the theft of adenium ornamental plants. Water pumps are used to distribute water from springs, namely drilled wells to the location of adenium ornamental plants. The first respondent spent Rp. 600,000, -/year, where the use of electricity is used for the maintenance of adenium ornamental plants. The second respondent spent Rp. 600,000, -/year, where electricity is used to turn on water pumps and lights as lighting. The third respondent spent Rp. 200,000, -/year, this third respondent is relatively small in spending on electricity, this is because the use of water pumps and lights is rarely done. Its use is done when it is necessary.

# **Production Cost**

Recapitulation Production cost recapitulation is the sum of all production costs from fertilizer costs, pesticide costs, planting media costs, polybag costs, pot costs, tool depreciation costs, shipping costs, transportation costs, labor costs and electricity costs from the three respondents or adenium ornamental plant entrepreneurs in Samarinda City. The first respondent incurred a production cost of IDR 15,602,125/year. The second respondent spent a production cost of Rp. 18,824,708.33/year and the third respondent incurred a production cost of Rp. 35,879,416.66/year.

# **Receipt Calculation**

This revenue is generated from sales revenue multiplied by the number of Adenium ornamental plants sold. The price for adenium ornamental plants varies greatly, the price for adenium is for the type of *AdeniumObesumgrade* A ranges from Rp. 30.000,- to Rp. 40.000,-./plant, *grade* B ranges from Rp. 60,000, - to Rp. 80.000,-/plant, *grade* C ranges from Rp. 120,000, - up to Rp. 150.000,-/plant, *grade* D ranges from Rp. 150,000, - up to Rp. 200.000,-/plant. Likewise with the type of *AdeniumArabicumGrade* A ranges from Rp. 100,000, - up to Rp. 125.000,-/plant. *Grade* C ranges from Rp. 300.000,- up to Rp. 350.000,-/plant, *grade* D ranges from Rp. 100,000, - up to Rp. 500,000, -/plant. *Grade* C ranges from Rp. 300.000,- up to Rp. 350.000,-/plant, *grade* D ranges from Rp. 100,000, - up to Rp. 125.000,-/plant. *Grade* C ranges from Rp. 300.000,- up to Rp. 350.000,-/plant, *grade* D ranges from Rp. 100,000, - up to Rp. 500,000, - /plant. *Grade* C ranges from Rp. 300.000,- up to Rp. 350.000,-/plant, *grade* D ranges from Rp. 100,000, - up to Rp. 125.000,-/plant. *Grade* C ranges from Rp. 300.000,- up to Rp. 350.000,-/plant, *grade* D ranges from Rp. 100,000, - up to Rp. 500,000, - / plant to millions of rupiah.

The first respondent generates revenue of Rp. 37,075,000,-/year. The second respondent received an income of Rp. 40,975,000, -/year and the third respondent generates revenue of Rp. 61,300,000,-/year. The third respondent generates greater revenue than the two respondents, this is because the number of adenium ornamental plants sold during the year is greater than the two respondents. Location also affects the consumer's level of buying, where the third respondent or entrepreneur has a strategic location in the city center so that market reach or access is also easy.

# 3. Calculation of loss/profit

After knowing the expenses and receipts of the three respondents, it can be seen that the amount of Income Assets (EAT) for each of them is known. The calculation of loss/profit or income is done by means of receipts minus production costs for a year from each respondent. The first respondent earned an income of Rp. 21,475,875, -/year, the second respondent earns Rp. 22,150,291.67/year and the third respondent generates income from his business of Rp. 25,420,583.34/year which can be seen in

Tabit.	Calculation of loss/profit of th	le unce officialiental plant ademu	in endepreneurs for 1 year
Respondents	Total revenue	Total production costs of	Income Assets (EAT)
Ι	37.075.000,-	15.602.125,	21.475.875,
II	40.975.000,-	18.824.708,33	22.150.291,67
III	61.300.000,-	35.879.416,66	25.420.583,34
Total	139.350.000,-	70.306.249,99	69.046.750,01
Average	46.450.000,-	23.435.416,66	23.015.583,34

Table. Calculation of loss/profit of the three ornamental plant adenium entrepreneurs for 1 year

Source: 2021 Primary Data Processing Results

#### 4. Calculation of Profitability

Based on the loss/profit calculation in Appendix 10, it can be calculated the level of profitability (profitability) achieved by the three ornamental plant adenium entrepreneurs. This profitability calculation can be calculated by dividing the income assets by the initial investment and then multiplying it by one hundred percent. The three adenium ornamental plant entrepreneurs are relatively the same in their initial investment of Rp. 50,000,000,-. The first respondent's profitability level was 42.95%, the second respondent's profitability was 44.30% and the third respondent's profitability was 50.84%. When viewed from the three respondents, the level of profitability in one year is not maximal in returning the initial investment capital used. This is because the business of ornamental adenium plants has only been in the last year so it needs to increase production more so that income is expected to increase which can be seen in the table.

Table of Profitability of the three Adenium ornamental plant entrepreneurs for 1 year

Respondents	Profitability	
Ι	42,95 %	
II	44,30 %	
III	50,84 %	

Source: 2017 Primary Data Processing Results

#### 5. Business Feasibility Analysis

Investment feasibility from the financial aspect can be measured using financial analysis which includes *Payback Period* (PB) analysis, in *Net Present Value* (NPV).From the data processed in this study, *Net Cash Flow* or *Proceeds* obtained from investments planted in the Adenium ornamental plant business were compiled.

#### Analysis Net Cash Flow (Proceeds)

If the low profitability achieved by adenium ornamental plant entrepreneurs in Samarinda City is carried out, then it is said to be less profitable when viewed from the *Net Cash Flow*. Of the three respondents, it can be seen that the first respondent has an NCF of Rp. 22,250,750, -/year, the second respondent has an NCF of Rp. 24,148,000, -/year and the second respondent has an NCF of Rp. 26,123,000,-/year. The third respondent is higher than the two respondents, this is because the level of income earned is greater and the equipment depreciation is also smaller than the two respondents. Where the NCF itself is obtained from income assets added to the depreciation of equipment for 1 year which can be clearly seen in the table.

Table of Net Cash Flow (NCF) of the three ornamental plant adenium entrepreneurs for 1 year

Respondents	NCF
Ι	22.250.750,-
II	24.148.000,-
III	26.123.000,-

Source: 2021 Primary Data Processing Results

#### Analysis Payback Period

This calculation is used to measure the ability of the three adenium ornamental plant entrepreneurs to return investments invested within a certain period of time from *Proceeds* obtained by not paying attention to or including the *time value of money*. From the three respondents, it can be seen how long it took for each entrepreneur to return their initial investment.first respondent was *Payback Period* 2 years and 2 months, where

the first respondent was able to return the investment invested in the Adenium ornamental plant business for 2 years and 2 months.

second respondent *Payback Period* 2 years, where the second respondent is able to return the investment invested in the Adenium ornamental plant business for 2 years and the third respondent *Payback Period* 1 year 10 months, namely the third respondent is able to return the investment invested in the Adenium ornamental plant business for 1 year 10 months. The third respondent is quicker to return the investment invested in the adenium ornamental plant business, this is because the *net cash flow* generated is higher than the two respondents which can be clearly seen in the table.

Table Payback period for the three Adenium ornamental plant entrepreneurs for 1 year

Payback period
2 years 2 months
2 years
1 year 10 months

Source : 2021 Primary Data Processing Results

#### Analysis Net Present Value (NPV)

CalculationValue is used to calculate the ability to return investments made in a business by calculating the time value of money at Discount Factor based on the SBI interest rate taken from April to July 2007 which can be seen in the Appendix 14. To determine the present value of the Net Cash Flow received each year by calculating

Based on the calculation of the Net Present Value , the Net Present Value is positive for the first respondent, namely Rp. 1,659,584.28, where the NCF from the first year to the third year is the same as Rp. 22,250,750, - with a Discount Factor the first year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000,-.second respondent Net Present Value of Rp. 6,064,411.60, where the NCF from the first year to the third year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000,-.Third respondentNet Present Value of Rp. 10,649,769.10, where the first year to third year NCF are both Rp. 26,123,000, - with a Discount Factor the first year is 0.8772, the second year is 0.7695 and the third year is 0.6750 with an initial investment of Rp. 50,000,000,-.If you look at the third respondent, it is bigger than the other respondents because the present value is bigger, namely Rp. 60,649,769.10 with an initial investment of Rp. 50,000,000,- which can be clearly seen in the table.

Table .Net Present Value (NPV) of the three ornamental plant entrepreneurs for 1 year	
Respondents	NPV
I	1.629.584,28
Π	6.064.411,60
III	10.649.769,60

Source: 2021 Primary Data Processing Results

#### Analysis Profitability Index (PI)

Used to measure the ability to return on investment by taking into account the Net Cash Flow in the future in the present value (present value) of income compared to investment.Profitability Index (PI) shows that there is more than one investment made by adenium ornamental plant entrepreneurs in Samarinda City, so it can be concluded that the investment is feasible. The first respondent was Rp. 1.03, where the ability to return on investment as measured by Net Cash Flow in the future is inpresent value. The second respondent is Rp. 1.12, where the ability to return on investment as measured by Net Cash Flow in the future is inpresent value. The second respondent is Rp. 1.12, where the ability to return on investment as measured by Net Cash Flow in the future is inpresent value and the third respondent ProfitabilityIndexisRp. 1.21. When viewed from the three respondents or ornamental plant entrepreneurs, it can be said that it is feasible to cultivate, this is because if the Profitability Index is greater than 1 then it is said to be feasible. The greater Profitability Index , the more feasible the effort is to be developed. From the three respondents it can be seen that the Profitability Index can still continue to increase because these three respondents have just established their business for 1 year which can be clearly seen in the table.

Table of Profitability Index of the three ornamental plant adenium entrepreneurs for 1 year

Respondents	Profitability Index
Ι	1,03
Π	1,12
III	1,21

Source : 2021 Primary Data Processing Results

# IV. CONCLUSIONS AND RECOMMENDATIONS

# 1. Conclusion

Based on the results of research and discussion, it is concluded as follows:

- 1. The profitability level of the first respondent is 42.95%, the second respondent's profitability is 44.30% and the third respondent's profitability is 50.84%. When viewed from the three respondents, the level of profitability in one year is not said to be maximal in returning the initial investment capital used with a *discount factor* 13.99%.
- 2. Business feasibility of first responders *Payback Period* 2 years 2 months, NPV1,659,584.28,PI 1.03, second respondent *Payback Period* 2 years, NPV6,064,411.60,PI 1.12, third respondent *Payback Period* 1 year 10 months, NPV10,649,769.10, PI 1.21. When viewed from the three respondents, the Adenium ornamental plant business is feasible to be cultivated.

# 2. Recommendations

Based on the results of research and discussion, it is concluded as follows:

- 1. Adenium ornamental plant entrepreneurs in Samarinda City need to pay attention to strategies or alternatives so they don't always order adenium ornamental plants on the island of Java which affect income.
- 2. It is necessary to hold adenium ornamental plant exhibitions on an ongoing basis so that adenium ornamental plants are more popular in the community and widely known.
- 3. The government and the private sector should assist in efforts to increase the productivity of adenium ornamental plant entrepreneurs, especially capital.

# ACKNOWLEDGEMENT

The authors would like to thank the Agricultural Extension Center for North Samarinda District, the Agriculture and Plantation Service, the Samarinda City Food Crops Service, other related institutions for supporting the availability of data in this study for their support during the implementation of this research.

#### REFERENCES

- [1]. Agus, A., and Beikran. 2004. Beautify the appearance of adenium. AgromediaPustaka, Jakarta.
- [2]. Central Bureau of Statistics. 2006. Area, population and population density by district/city. Central Bureau of Statistics for East Kalimantan Province, Samarinda.
- [3]. BanoeWidjojo, M. 1984. Agricultural development. National Business, Surabaya.
- [4]. Boediono. 1982. Introduction to microeconomics. Gajahmada University Faculty of Agriculture, Yogyakarta.
- [5]. Daniel, M.MS. 2002. Introduction to Agricultural Science. Earth Script, Jakarta.
- [6]. Hadisapoetra, S. 1983. Costs and income in farming. Department of Agricultural Economics. FE-UGM, Yogyakarta.
- [7]. HardiSoenanto. 2005. Enchantment of Adenium. Canisius, Yogyakarta.
- [8]. Hendriksen, SJ 1993. Accounting theory. Erlangga, Jakarta.
- [9]. Hernanto, P. 1996. Farming science. Independent Spreader, Jakarta.
- [10]. Husnan and Suwarsono, 2000. Corporate Expenditures. Fourth edition. Liberty, Yogyakarta.
- [11]. Kamarudin. 1982. Production management. Alumni, Bandung.
- [12]. Kamisa, 1997. Complete Indonesian Dictionary. Kartika, Surabaya.
- [13]. Mosher. AT 1991. Mobilizing and building agriculture. Translated by S. Krisnandhi and B. Samad. Jasaguna, Jakarta.
- [14]. Mubyarto. 1994. Introduction to Agricultural Science. LP3ES, Jakarta.
- [15]. Nitisemito, AS 1991. Marketing. Ghalia Indonesia, Jakarta.
- [16]. Rahardi. 1993. Ornamental plant agribusiness. Independent Spreader, Jakarta.
- [17]. Rangkuti, F. 2003. Marketing research. Gramedia, Jakarta.
- [18]. RiyantoBambang, 2001. Fundamentals of corporate spending. Fourth edition. BPFE, Yogyakarta.
- [19]. Rukman, R. 2005. Ornamental plant propagation techniques. Canisius, Yogyakarta.
- [20]. Soehardjo, S and D. Patong. 1992. Main joints of farming. FapertaUnhas, Ujung Pandang.
- [21]. Soekartawi, A. 1993. Basic principles of agricultural economics. (theory and its application). Rajawali Press, Jakarta.
- [22]. Soekartawi, A. 2002. Basic principles of agricultural economics (theory and application). Rajawali Press, Jakarta.
- [23]. Suad and S. Muhammad, 2000. Project feasibility study. UPP AMP YKPN, Yogyakarta.
- [24]. Sudarsono. 1991. Introduction to microeconomics. LP3ES, Jakarta.
- [25]. Sugih, O. 2005. 88 Variations of Adenium to diligently flower. Independent Spreader, Jakarta.
- [26]. Supranto, J. 1991. Quantitative forecasting methods for planning. Gramedia, Jakarta.
- [27]. SutojoSiswanto, 2000. Project investment financing. DamarMulyaPustaka, Jakarta.

Abdul Rachim. "Profitability and Feasibility Analysis of Adenium Ornamental Plant (Adenium Sp.) In Samarinda City." *IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS)*, 16(2), 2023, pp. 20-27.