

THE BUSINESS DEVELOPMENT OF SWALLOW BIRD NEST'S HOUSE IN KAPUAS DISTRICT, CENTRAL BORNEO

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ABSTRACT

The purpose of this study is to determine the feasibility of the business development of swallow bird nest's house in Kapuas, Central Borneo. In this research will be discussed through 6 aspects of the feasibility study. They are legal, environmental, market, technical and technological, management, and financial aspects. Based on the legal, environmental, market, technical and technological, and management aspects are declared feasible to be developed.

In the financial analysis, the total investment required is Rp 1,913,180,000.00. To analyze the feasibility of this business, the calculation methods that used are Payback Period (PP), Net Present Value (NPV), Internal Rate of Return (IRR), and Profitability Index (PI), with 3 scenarios analysis, which are pessimistic, moderate, and optimistic scenario. In the pessimistic scenario, the result of PP is 6 years and 9 months, NPV is Rp 1,876,257,363.00, IRR is 19%, and PI is 4.2. In the moderate scenario, the result of PP is 5 years and 9 months, NPV is Rp 9,276,885,204.00, IRR is 38%, and PI is 13.18. In the optimistic scenario, the result of PP is 5 years and 5 months, NPV is Rp 16,954,432,217.00, IRR is 49%, and PI is 22.16. Based on the feasibility assessment on the financial aspect, this business is declared feasible to be developed on all three scenarios analysis.

Keywords: business development , feasibility study , swallow bird's nest, investment.

INTRODUCTION

Swallow nest has been known in China since the 14th century and became a very prestigious food. Until now, swallow nest is still a world-famous food for its health benefits (Marzuki, 2011: 6). Indonesia is a producer and exporter of swallow nest in the world. As many as 75% of swallow nest circulating in the world comes from Indonesia (Budiman and Nugroho, 2009: 3). As for only the need of swallow nest in China, Indonesia supplying 90% of their domestic needs (Ridha, 2012).

Swallow nest farming in Indonesia was originally done in Java. (Nugroho and Budiman, 2009: 17). However, today the development of a swallow on the island of Java and also Madura makrohabitat less suitable for many areas of food sources swallow converted into agricultural

land (Ridha, 2012). Therefore, in some places swallow nest's house in Java, the population is declining (Budiman and Nugroho, 2009: 27). In contrast to the conditions in the Java ecosystem, the ecosystem on Borneo is much more natural. This condition is very well suited for the swallow to find food, so it is possible to build new productive swallow nest's house (Tandean, 2012).

Ridha (2012) explains that building a swiftlet house is still a trend in Central Borneo. Based on reports from Trubus (2014) along the way to the District Pulangpisau between Palangkaraya, Central Borneo, found home bird that quite a lot. Swiftlet house measuring 13x5 meters high and 15 meters of 2.5 years old is able to harvest 1.5-2 kg nest every 28-30 days. In fact, there is a swallow nest's house measuring 10x15 meters, 5 floors, 5 years old, in Banjarmasin were able to harvest 20 kg nest every month.

Based on the explanation above, then through the feasibility study report is expected to provide an overview and further information and details about the business opportunities of bird's nest farming in the research area. The purpose of this study was to determine the feasibility of the swallow nest business development in Kapuas, Central Borneo, viewed from several aspects, legal, environmental, market, technical and technology, management, and financial aspects.

LITERATURE REVIEW

According to Jumingan (2014: 3), the feasibility study is research on whether a project can be implemented successfully. According Suliyanto (2010: 9), the aspects included in the feasibility study are legal, environmental, market, technical and technology, management, and financial aspects.

Legal aspect

Analyzing the ability of businesses to comply with legal requirements and permits required to conduct business in a particular area. Sunyoto (2014: 304) explains that there are several forms of business entities:

1. Sole Proprietorship
Is a company founded and owned by individuals. There are no regulations for the establishment of private companies, which are required only request permission from the local licensing office.
2. Maatschapis
An agreement by two or more persons bind themselves to put something in communion, with the intention of dividing the ensuing profits. Three elements in civil partnership is an agreement, entry into the company, and profit sharing.
3. Firm (Fa)
Is a union from some private entrepreneurs into a single entity for managing the joint venture. The members who gathered an active member so that the company is managed and owned by several people.
4. Commanditaire Vennootschaap (CV)
Is a union from some private entrepreneurs into a single entity for managing the joint venture, in which there are active and passive members. Active members are members who manage their business and take full responsibility for the company's debt. While passive members are members who simply depositing the capital only and do not participate in managing the company.
5. Ltd or PT
Is a union from some private entrepreneurs into a single entity for managing the joint venture, in which the company gives an opportunity to the public to include capital into the company by buying shares of the company.

According Suliyanto (2010: 26-30) some licensing requirements that must have to build a business are:

1. Taxpayer ID Number or *Nomor Pajak Wajib Pajak (NPWP)*
2. Principle Permit
3. Location Permit
4. Building Permit or *Izin Mendirikan Bangunan (IMB)*
5. Hinder Ordinance (HO) Permit
6. Business License or Surat Izin Usaha Perdagangan (SIUP)
7. Registration License of Companies or *Tanda Daftar Perusahaan (TDP)*
8. Industrial Business License or *Izin Usaha Industri (IUI)*
9. Extension of Business License or *Izin Usaha Perluasan (IUP)*
10. Advertising Permit
11. Construction Services Business License or *Izin Usaha Jasa Konstruksi (IUJK)*

Environmental aspect

SWOT analysis

According to Armstrong & Kotler (2013: 82) SWOT analysis is to observe the external and internal marketing environment of the company. After knowing the strengths, weaknesses, opportunities, and threads (Table 1), then we will know where is the company stand in the environment that can be seen in the SWOT section quadrant, and what strategy to use.

Table 1. SWOT Matrix

<i>IFAS/EFAS</i>	<i>STRENGTHS</i>	<i>WEAKNESSES</i>
<i>OPPORTUNITIES</i>	<i>Strategy SO (Growth)</i> Do the <i>market penetration and product development</i>	<i>Strategy WO (Stability)</i> Do the <i>cost re-engineering</i>
<i>THREATS</i>	<i>Strategy ST (Diversification)</i> Using the strength in facing the threats	<i>Strategy WT (Turnaround)</i> Defence strategies to overcome weaknesses that are not easily attacked by threats

Source: Dellaney dan Whittington, 2010:139.

Market Aspect

Analyze market potential, intensity of competition, market shares can be achieved, as well as analyzing the marketing strategies that can be used to achieve the expected market share.

Marketing Mix (4P)

Fahmi (2014: 123) explains that there are four variables in the marketing system, or commonly known as the marketing mix (4Ps), they are product, place, price and promotion.

Products are goods and services. Place is a place or location of the sale of these products. Price is the price specified on the product is seen and is calculated based on the purchase of raw materials, distribution or transportation costs, salaries of employees, and others to finally decide a decent price (feasible) and benefits. Promotion is how to introduce products to consumers in order to know, as well as being a loyal customer to the product (Fahmi, 2014: 123).

Marketing Strategy (Segmenting, Targeting, Differentiation, and Positioning)

The marketing strategy is an efficient strategy that serves to assist the company in providing value to its customers advantages and build loyalty among customers (Kotler & Armstrong,

2010: 216). According to Kotler & Armstrong (2010: 216) marketing strategy can be done with four stages: Segmenting, Targeting, Differentiation, and Positioning.

Segmenting is an activity divide the heterogeneous market of a product into a market segment that is homogeneous. Targeting is the selection of the target market, a collection of buyers with similar needs or characteristics that would be served the company. Differentiation is the activity of designing a set of meaningful differences to distinguish company's offering with competitor's offering. Positioning is the activity to design the corporate image that occupies a competitive position and in accordance with the wishes of customers target.

Technical and Technological Aspect

Analyzing the technical readiness and availability of the technology needed to run a business. Things that need to be analyzed and understood in the technical aspects are determining the location of a business, determining the production area, determining the plant layout and construction, and technology choices (Suliyanto, 2010: 134).

Management Aspect

Analyze management functions along with their respective duties and also analyzed the organizational structure what is suitable to apply to the company. According to Rahmat (2014: 256-262) there are some form of organizational structure that can be applied in the company:

1. Simple Structure Organization: only has two levels, namely the owners and workers.
2. Functional Structure Organization: organizational structure that groups of individuals in the organization based on the same job.
3. Divisional Structure Organization: each division can operate on its own under the supervision of a division manager who is directly responsible to the CEO.
4. Strategic Business Units (SBU): this structure grouping a number of divisions based on several aspects, such as product line or market.
5. Matrix Structure Organization: a combination of functional structure organization and divisional structure organization.
- 6.

Financial Aspect

On the financial aspect, there are several methods that can be used in analyzing and assessing the feasibility of the investment, they are:

Payback Period (PP)

Payback period is the time in which the initial cash outflow of an investment is expected to be recovered from the cash inflows generated by the investment. The formula is:

$$\text{PaybackPeriod(PP)} = \frac{\text{Cost of project (investment)}}{\text{Annual cash inflows}}$$

Net Present Value (NPV)

NPV is a calculation that compares the amount invested today to the present value of the future cash receipts from the investment. The project is feasible if $NPV > 0$. The formula is:

$$\text{Net Present Value (NPV)} = \sum_{t=0}^n \frac{A_t}{(1+k)^t}$$

Internal Rate of Return (IRR)

IRR is a metric used in capital budgeting measuring the profitability of potential investments. Internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows from a particular project equal to zero. If the Internal Rate of Return (IRR) is greater than the interest on the loan it's accepted, if it is smaller then it's rejected.

$$\sum_{t=0}^n \left[\frac{At}{(1+r)^t} \right] = 0$$

Profitability Index (PI)

PI, also known as Profit Investment Ratio (PIR) or Value Investment Ratio (VIR), is a method of calculating the ratio between the present value of net cash receipts in the future (proceeds) with a current investment value (outlays). An investment is accepted if $PI > 1$.

$$PI = \frac{\text{Proceeds}}{\text{Outlays}}$$

RESEARCH METHODS

The research approach used in this study is an applied research with development type. Applied research related to the application and theory to solve problems (Silahahi, 2011: 23). While, development type of research is a research that aims to develop product to make it higher quality (Kuncoro, 2013: 7).

This research was conducted in the Kapuas, Central Borneo, which is one of the centers of swallow in Borneo. While the time of the study conducted from July to August 2015.

This study using judgment sampling method to determine the informant. Judgement sampling is one type of purposive sampling besides quota sampling where researcher selected an informant based on an assessment of some of the characteristic of the sample (informant), adjusted from the purpose of research (Kuncoro, 2013: 139).

This research using primary and secondary data sources. The primary data source used in this research is through interviews, direct observation, and documentation. Secondary data sources used in this study was obtained through the documentation of company reports, literature, and other literature related to the research.

To processing the data, this research using qualitative analysis methods. However, for the processing of data on the financial aspects will be performed using quantitative analysis method because it would refer to the company's financial reports.

ANALYSIS AND DISCUSSION

An Overview of Research Object

This business of this swallow bird nest's house active from June 2013. It currently has been running for 2 years to 3 years. When harvest, this house can produce 5 kg dirty bird's nest and will grow more over the time. Thus, in the current conditions in Kapuas swallow bird nest's house can be harvested every 4 months or 3 times a year. Thus, the total harvest in a year is $5 \text{ kg} \times 3 = 15 \text{ kgs}$ per year. With the current sale price is Rp 7,000,000.00, so the turnover obtained from the harvest of bird's nest is $15 \text{ kgs} \times \text{Rp } 17,000,000.00 = \text{Rp } 255,000,000.00$ per year.

Legal aspect

In terms of law, established business will take the form of an individual or sole proprietorship. This type of business was selected because of the scope of this business is not too big and owned by private individual.

The flow to have the permit the swallow bird nest's house in Kapuas district can be seen in Figure 1. To establish a swallow building required completeness some permits, so the business can be established legally, they are HO and IMB permit. HO permit form can be obtained at the office of Badan Pelayanan Perizinan Terpadu (BPPT) Kapuas. Once the HO form is complete, it can be returned to the Kapuas BPPT office to get a receipt for HO permit. The receipt is then

used to take arrange the IMB permit. After getting a receipt of IMB, housing construction can begin legally.

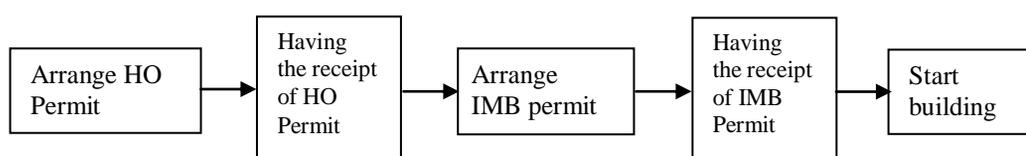


Figure 1. The procedure to arrange the permit to build the swallow bird nest's house in Kapuas.

(Data processed, 2016)

Environmental aspect

To observe the external and internal factor of the environment, a SWOT analysis is carried out as follows:

Strength:

1. The level of demand from final consumers, particularly from China, is still high, so although there are new competitors emerging there is still room to run this business without having to compete on price strictly.
2. Do not rely only on one supplier, but many suppliers are interchangeable when the desired item is empty on one supplier.
3. The price competition is not too tight because demand is still higher than the stock of goods in the market today.

Weakness:

1. Fluctuations in selling prices in certain seasons can sometimes rise high and sometimes rather low.
2. The location is far from the living home, so it took extra cost for accommodation.
3. Less used of technology in running the business.

Opportunity:

1. The easy access and local infrastructure opportunities for investors to work together to open new swallow bird nest's house in Kapuas, Central Borneo.
2. MEA in early 2016 opens new market opportunities for the sale of bird's nest abroad.

Threat:

1. Potential regulatory changes and new rules issued by the new Governor of Central Borneo, which has been elected in 2016.
2. The competition is increasing among owners swallow bird nest's house because of the ease of access and infrastructure for connecting all provinces in Borneo.
3. The development of technology in building swiftlet house has not been implemented to the fullest.

In Table 2 shows the score of internal factors that affect the company, while the Table 3 shows the score of external factors that affect the company.

Table 2. Score of internal factors

	Internal Factors	A	B	C	D	E	F	Total	Score
A	High demand		3	2	3	3	3	14	0,233
B	Do not rely only on one supplier	1		1	2	2	3	9	0,150
C	The price competition is not too tight	2	3		3	2	3	13	0,217
D	Price fluctuation	1	2	1		2	2	8	0,133
E	Extra cost for accommodation	1	2	2	2		2	9	0,150
F	Less used of technology	1	1	1	2	2		7	0,117
								60	1,000

Source: Data processed (2016)

Table 3. Score of external factors

	External Factors	A	B	C	D	E	Total	Score
G	Easy access and infrastructure		2	3	2	3	10	0,250
H	MEA 2016 opens	2		2	2	3	9	0,225
I	Potential regulatory changes and new rules	1	2		2	2	7	0,175
J	Increasing of the new competitor	2	2	2		3	9	0,225
K	New technology competition	1	1	2	1		5	0,125
							40	1,000

Source: Data processed (2016)

In Table 4 shows the value of internal factor and found the number of S and W. While on Table 5 shows the value of external factor and found the number of O and T. After the value in internal and external factors are combined, the result point coordinates in Figure 2 are:

- internal coordinates (x): S - W = 2.317 to 0.650 = 1.667
- external coordinates (y): O - T = 1.900 to 1.550 = 0.350

Table 4. Value of internal factors

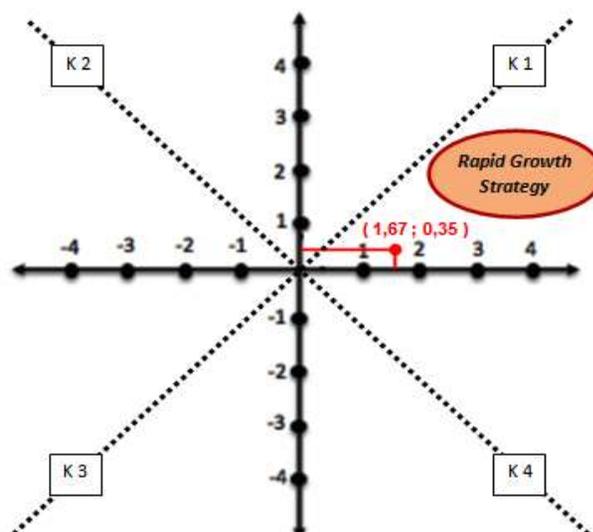
Internal Factors	Quality	Rating	Value (Quality x Rating)	
Strength				
A	High demand	0,233	4	0,933
B	Do not rely only on one supplier	0,150	3	0,450
C	The price competition is not too tight	0,233	4	0,933
Total S			0,617	2,317
Weakness				
D	Price fluctuation	0,133	2	0,267
E	Extra cost for accommodation	0,133	2	0,267
F	Less used of technology	0,117	1	0,117
Total W			0,383	0,650
Total S+W			1,000	2,967

Source: Data processed (2016)

Table 5. Value of external factors

External Factors		Quality	Rating	Value (Quality x Rating)
Opportunity				
G	Easy access and infrastructure	0,250	4	1,000
H	MEA 2016 opens	0,225	4	0,900
Total O		0,475		1,900
Threat				
I	Potential new regulatory and rules	0,175	3	0,525
J	Increasing of the new competitor	0,225	4	0,900
K	New technology competition	0,125	1	0,125
Total T		0,525		1,550
Total O+T		1,000		3,450

Source: Data processed (2016)



**Figure 2. The coordinate of SWOT
(Data processed, 2016)**

Based on the results of SWOT analysis above, this business is located in Quadrant I and room A (first), namely rapid growth strategy. Business development that will be done in this business is to do with efforts to increase the number of the swallow's colonies inside the building. To increase profitability, companies can sell the harvest to the bigger agent or distributor.

Market Aspect

STP

1. Segmenting: As many as 90% of bird's nest in Indonesia is exported to China. For the moment, this company do not stray into specific areas or cities in marketing our products. This company just do sell the harvest to the local agent in Kapuas.

2. Targeting: The target market of this effort is the agent, either local or small or big agent, service companies that cleaning of bird's nest, and exporter of bird's nest.
3. Positioning: This company is a producer or supplier of dirty bird's nest material.

Marketing Mix (4P)

1. Product: Raw material of dirty bird's nest.
2. Price: In determining the price of bird's nest still follows the market mechanism.
3. Place: Location swiftlet house we were in Kapuas, where the location is not too close to the city, crowds, or industrial areas. To travel to the site takes about 40 minutes from Banjarmasin city, so access to the business location is quite easy.
4. Promotion: Promotion has been done so far is direct selling to the local agent in town.

Technical and Technological Aspect

1. Maximum capacity: In one building there are 5 floors with a total maximum production capacity of one building is 5 floors x 7,500 nest per floor = 37,500 nest in the building.
2. Layout design: The land area required to build a swiftlet house in this location is 30 x 35 m². Where the building area is 10 x 15 m² x 5 stories. The building will be built with a special technique which is designed to adjust the habitats where the swallow birds stay.
3. Technical Building Swallow
Some factors to consider in building a swallow bird nest's house are:
 - a. The humidity in the room is 80%
 - b. The temperature of the room in the room 28°-30°C
 - c. The darker the room the more favored by swallow bird
 - d. It has a thick distinctive aroma of swallow bird
 - e. Have a decoy sound like a swallow bird
4. Building technology: The technology used in this business is swallow bird's voice audio recorder and timer machines. Swallow voice recording can be set automatically when the voice will turn on and also what type of sound that want to use.

Management Aspect

The organizational structure used in this company is simple organizational structure, because the business is relatively small and has only one product is produced, which is of bird's nest.

Financial Aspect

The working capital needed to run this swallow bird's nest business consists of labor costs, office costs, building costs, transportation costs, and material costs (Table 6).

Table 6. The working capital needed for swallow bird nest's house

No	Description	Amount	Unit	Price (Rp)	Total Price (Rp)
1	Labor Cost				
	House guard	1	Person	1.500.000	19.500.000
	Total 1				19.500.000
2	Office Costs				
	Telephone	12	Month	100.000	1.200.000
	Electricity	12	Month	200.000	2.400.000
	Total 2				3.600.000
3	Building Costs				
	Building repairs	1	Package	7.000.000	7.000.000

	Maintenance	1	Package	5.000.000	5.000.000
	Total 3				12.000.000
4	Transportation Costs				
	Air ticket	12	Month	1.000.000	12.000.000
	Accommodation	12	Month	500.000	6.000.000
	Total 4				18.000.000
5	Material Costs				
	Pesticides	20	Unit	5.000	100.000
	Rat glue	5	Unit	17.000	85.000
	Swallow liquid	10	Bottle	180.000	1.800.000
	Total 5				1.985.000
	Total Working Capital				55.085.000

Source: Data processed (2016)

The investment needed to build a swallow bird nest's house with size 10m x 15m x 5 floors required investment of Rp 1,913,180,000.00, details of which can be seen in Table 7 below.

Table 7. The investment needed to build a swallow bird nest's house

No	Description	Amount	Unit	Price (Rp)	Total Price (Rp)
1	Preparation cost				
	Survey and consulting services	1	package	15.000.000	15.000.000
	Total 1				15.000.000
2	Company investment				
	Construction of 5 floors building	750	m ²	2.000.000	1.500.000.000
	Cost of electrical installations	1	package	2.000.000	2.000.000
	Well construction	1	package	10.000.000	10.000.000
	Total 2				1.512.000.000
3	Production equipment				
	Audio amplifier	3	unit	900.000	2.700.000
	Tweeter	75	unit	25.000	1.875.000
	Flashdisk	3	unit	50.000	150.000
	Crop tools for harvesting	3	unit	100.000	300.000
	Hygrometer	5	unit	50.000	250.000
	Thermometer	5	unit	50.000	250.000
	Digital timer machine	6	unit	225.000	1.350.000
	Water pump	1	unit	1.800.000	1.800.000
	Flashlight	2	unit	60.000	120.000
	HP	1	unit	1.000.000	1.000.000
	Alluminium ladder	1	unit	1.800.000	1.800.000
	Recorded sound of swallow	3	unit	1.500.000	4.500.000
	Total 3				16.095.000
	Total 1+2+3				1.543.095.000

4	Other				
	Land	1.050	m ²	300.000	315.000.000
	Working capital	1	package		55.085.000
	Total 4				370.085.000
	Total investment				1.913.180.000

Source: Data processed (2016)

Sales projection

Table 8. The number of bird's nests annually

Year	Ammount of bird's nest every harvest time	Total harvest of bird's nest	Scenario		
			Pessimist	Moderate	Optimist
			harvest 1x per year	harvest 3x per year	harvest 5x per year
1	50 nests	50	50	150	250
2	50 + (2x 50 nests)	150	150	450	750
3	150 + (2x 150 nests)	450	450	1.350	2.250
4	450 + (2x 450 nests)	1.350	1.350	4.050	6.750
5	1350 + (2x 1.350 nests)	4.050	4.050	12.150	20.250
6	4.050 + (2x 4.050 nests)	12.150	12.150	36.450	60.750
7	12.500 + (2x 12.500 nests)	37.500	37.500	112.500	187.500
8	Consistently 37.500 nests (maximum capacity)	37.500	37.500	112.500	187.500
9	Consistently 37.500 nests (maximum capacity)	37.500	37.500	112.500	187.500
10	Consistently 37.500 nests (maximum capacity)	37.500	37.500	112.500	187.500

Source: Data processed (2016)

The sales projection of pessimistic scenario can be seen in Table 9. While the sales projection of moderate scenario can be seen in Table 10. And the sales projection of optimistic scenario can be seen in Table 11.

Table 9. Sales projection of bird's nest on pessimistic scenario

Year	Nest ammount (harvest 1x per year)	Weight (kg)	Turnover per year (kg x Rp 7.000.000)	Cumulative
1 2017	50	0,42	2.916.667	2.916.667
2 2018	150	1,25	8.750.000	11.666.667
3 2019	450	3,75	26.250.000	37.916.667
4 2020	1.350	11,25	78.750.000	116.666.667
5 2021	4.050	33,75	236.250.000	352.916.667
6 2022	12.150	101,25	708.750.000	1.061.666.667

7	2023	37.500	312,50	2.187.500.000	3.249.166.667
8	2024	37.500	312,50	2.187.500.000	5.436.666.667
9	2025	37.500	312,50	2.187.500.000	7.624.166.667
10	2026	37.500	312,50	2.187.500.000	9.811.666.667

Source: Data processed (2016)

Table 10. Sales projection of bird's nest on moderate scenario

Year		Nest ammount (harvest 3x per year)	Weight (kg)	Turnover per Year (kg x Rp 7.000.000)	Cumulative
1	2017	150	1,25	8.750.000	8.750.000
2	2018	450	3,75	26.250.000	35.000.000
3	2019	1.350	11,25	78.750.000	113.750.000
4	2020	4.050	33,75	236.250.000	350.000.000
5	2021	12.150	101,25	708.750.000	1.058.750.000
6	2022	36.450	303,75	2.126.250.000	3.185.000.000
7	2023	112.500	937,50	6.562.500.000	9.747.500.000
8	2024	112.500	937,50	6.562.500.000	16.310.000.000
9	2025	112.500	937,50	6.562.500.000	22.872.500.000
10	2026	112.500	937,50	6.562.500.000	29.435.000.000

Source: Data processed (2016)

Table 11. Sales projection of bird's nest on optimistic scenario

Year		Nest ammount (harvest 5x per year)	Weight (kg)	Turnover per Year (kg x Rp 7.000.000)	Cumulative
1	2017	250	2,08	14.583.333	14.583.333
2	2018	750	6	43.750.000	58.333.333
3	2019	2.250	19	131.250.000	189.583.333
4	2020	6.750	56	393.750.000	583.333.333
5	2021	20.250	169	1.181.250.000	1.764.583.333
6	2022	60.750	506	3.543.750.000	5.308.333.333
7	2023	187.500	1.563	10.937.500.000	16.245.833.333
8	2024	187.500	1.563	10.937.500.000	27.183.333.333
9	2025	187.500	1.563	10.937.500.000	38.120.833.333
10	2026	187.500	1.563	10.937.500.000	49.058.333.333

Source: Data processed (2016)

Calculation of investment feasibility criteria (PP, NPV, IRR, and PI)

Before calculate the investment feasibility, we have some assumptions used in the financial data (Table 12).

Table 12. Investment assumption

No	Data	Result	Source
1	Inflation growth	4,45%	Bank Indonesia (www.bi.go.id)

2	Interest of deposits	6 %	Bank Mandiri (www.bungadeposito.com)
3	Interest of credit	10,5 %	Bank BRI (www.bi.go.id)
4	Tax	12,5%	www.pajak.go.id

Source: Data processed (2016)

Calculation of pessimistic scenario:

The calculation on pessimistic scenario in Table 13 show that the payback period is 6 years and 9 months. The calculation result of NPV, IRR, and PI can be seen in Table 14. The final calculation result for pessimistic scenario is feasible.

Table 13. Calculation of cashflow on pessimistic scenario

Year	EAT	Shrinkage	Net Cash	Cumulative	Present Value (PV)
0			- 1.913.180.000		-1.913.180.000
1	-130.413.958	78.245.625	-52.168.333	-1.965.348.333	-47.211.161
2	-127.031.908	78.245.625	-48.786.283	-2.014.134.616	-39.955.187
3	-112.092.272	78.245.625	-33.846.647	-2.047.981.263	-25.085.850
4	-62.266.573	78.245.625	15.979.052	-2.032.002.211	10.717.708
5	81.272.292	77.803.125	159.075.417	-1.872.926.793	96.558.760
6	492.156.884	77.803.125	569.960.009	-1.302.966.784	313.091.096
7	1.783.396.622	77.803.125	1.861.199.747	558.232.963	925.245.622
8	1.780.611.449	77.803.125	1.858.414.574	2.416.647.537	836.073.346
9	1.778.776.946	76.575.000	1.855.351.946	4.271.999.483	755.380.557
10	1.775.738.378	76.575.000	1.852.313.378	6.124.312.861	682.482.757
Residual value			765.750.000	6.890.062.861	282.139.716
Total Net Cash			8.037.492.861		

Source: Data processed (2016)

Table 14. Results of a feasibility assessment on the pessimistic scenario

Criteria	Result	Standard	Explanation
PP	6 years 9 months	-	-
NPV	Rp 1.876.257.363,00	>0	Feasible
IRR	19%	>10,5%	Feasible
PI	4,20	>1	Feasible

Source: Data processed (2016)

Calculation of moderate scenario:

The calculation on moderate scenario in Table 15 show that the payback period is 5 years and 9 months. The calculation result of NPV, IRR, and PI can be seen in Table 16. The final calculation result for moderate scenario is feasible.

Table 15. Calculation of cashflow on moderate scenario

Year	EAT	Shrinkage	Net Cash	Cumulative	Present Value (PV)
0			-1.913.180.000		- 1.913.180.000
1	-124.580.625	78.245.625	-46.335.000	-1.959.515.000	-41.932.127
2	-109.531.908	78.245.625	-31.286.283	-1.990.801.283	-25.622.966
3	-59.592.272	78.245.625	18.653.353	-1.972.147.930	13.825.157
4	83.329.249	78.245.625	161.574.874	-1.810.573.056	108.373.903
5	494.709.792	77.803.125	572.512.917	-1.238.060.138	347.515.276
6	1.732.469.384	77.803.125	1.810.272.509	572.212.371	994.421.002
7	5.611.521.622	77.803.125	5.689.324.747	6.261.537.118	2.828.295.470
8	5.608.736.449	77.803.125	5.686.539.574	11.948.076.692	2.558.290.403
9	5.606.901.946	76.575.000	5.683.476.946	17.631.553.638	2.313.948.029
10	5.603.863.378	76.575.000	5.680.438.378	23.311.992.016	2.092.951.057
Residual value			765.750.000	24.077.742.016	282.139.716
Total Net Cash			25.225.172.016		

Source: Data processed (2016)

Table 16. Results of a feasibility assessment on the moderate scenario

Criteria	Result	Standard	Explanation
PP	5 years 9 months	-	-
NPV	Rp 9.276.885.204,00	>0	Feasible
IRR	38%	>10,5%	Feasible
PI	13,18	>1	Feasible

Source: Data processed (2016)

Calculation of optimistic scenario:

The calculation on optimistic scenario in Table 17 show that the payback period is 5 years and 5 months. The calculation result of NPV, IRR, and PI can be seen in Table 18. The final calculation result for optimistic scenario is feasible.

Table 17. Calculation of cashflow on optimistic scenario

Year	EAT	Shrinkage	Net Cash	Cumulative	Present Value (PV)
0			-1.913.180.000		- 1.913.180.000
1	-118.747.292	78.245.625	-40.501.667	-1.953.681.667	-36.653.092
2	-92.031.908	78.245.625	-13.786.283	-1.967.467.949	-11.290.745
3	-7.092.272	78.245.625	71.153.353	-1.896.314.596	52.736.164
4	221.141.749	78.245.625	299.387.374	-1.596.927.222	200.809.553
5	908.147.292	77.803.125	985.950.417	-610.976.805	598.471.792
6	2.972.781.884	77.803.125	3.050.585.009	2.439.608.204	1.675.750.909
7	9.439.646.622	77.803.125	9.517.449.747	11.957.057.951	4.731.345.318
8	9.436.861.449	77.803.125	9.514.664.574	21.471.722.525	4.280.507.460

9	9.435.026.946	76.575.000	9.511.601.946	30.983.324.471	3.872.515.501
10	9.431.988.378	76.575.000	9.508.563.378	40.491.887.849	3.503.419.358
Residual value			765.750.000	41.257.637.849	282.139.716
Total Net Cash			42.405.067.849		

Source: Data processed (2016)

Table 18. Results of a feasibility assessment on the pessimistic scenario

Criteria	Result	Standard	Explanation
PP	5 years 3 months	-	-
NPV	Rp 16.954.432.217,00	>0	Feasible
IRR	49%	>10,5%	Feasible
PI	22,16	>1	Feasible

Source: Data processed (2016)

CONCLUSION

1. Based on the analysis of the legal aspect, the business form of sole proprietorships and already have clear business license measures, so that businesses declared feasible.
2. Based on the analysis of the environmental aspect, the business already has a SWOT analysis and enter into Quadrant I room A (first), namely rapid growth strategy, so in this aspect the business is feasible.
3. Based on the analysis of market aspect, the company has had STP and marketing mix (4P) analysis. Thus, the business aspect of this market is feasible.
4. Based on the analysis of technical and technological aspect, the company already has a good technical, but the technology can still be improved. In this aspect of the business is still feasible.
5. Based on the analysis of management aspect, the company has chosen the simple organizational structure and feasible.
6. Based on the financial aspect, the calculation of the PP, NPV, IRR, and PI analysis on all scenarios indicate feasible to be developed.
7. Based on all the aspects that have been analyzed, this business is declared feasible to be developed.

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