

FEASIBILITY ANALYSIS OF CULINARY BUSINESS CAFE NUSANTARA DEVELOPMENT IN THE CENTRAL OF JAKARTA

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Abstract. Nusantara Cafe was first established in 2018 as a traditional canteen. As known as a traditional one, the menus provided by the canteen are Indonesian main courses and beverages such as: tea, coffee, etc. This culinary business is located in the Central of Jakarta, which has an advantage of being in the central of industrial offices and businesses area. As a traditional canteen, the income of this business is still low and stagnant. However, based on the owner, one of the reasons is the lack of promotion and introduction to people around the canteen. Therefore, the owner of the business decided to take the opportunity to make a development in the business. The market potential of this area are workers which offices' are located in the central of the city. In order to establish the Cafe, a feasibility analysis is needed beforehand. The method used for the feasibility analysis is separated into market aspect, technical aspect, and financial aspect. Based on the research, the method used in collecting data is by distributing questionnaires. The calculation shows that the potential market value is 90% which equals to 119.321 prospective customers in a year. The target market is valued 1% of the available market which equals to 12.743 prospective visitors. The output of feasibility analysis based on the financial aspect is the amount of Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period (PBP) based on the investment period. Briefly, the value of NPV equals to Rp 56.025.515, the IRR value is 20,8%, and the PBP is 4,2 years. To summarize, the IRR value is bigger than Minimum Attractive Rate of Return (MARR) value, which is 10,25%. Therefore, the business is feasible to be developed.

Keywords: Nusantara Cafe, NPV, IRR, PBP, MARR

1. INTRODUCTION

As a basic human need, culinary is seen to develop widely through years in Indonesian society. This culinary industry has proven by contributing a big number in the national economy. Based on the data, national tourism and creative economy has provided approximately 30% of the total national economic income. In this case, the government gave statement to support throughout the culinary sub sectoral in Indonesia. [4]

Based on the supporting data above, the growth of culinary industry in Indonesia has increased within the year. Based on the data seen above (BPS, 2016), culinary sub sector positioned in the first one with the highest amount of percentage which is valued 41,89%. Therefore, it contributed 852 trillions Rupiah (7,38%) and it adsorbs 15,9 million Rupiah (13,9%) and the amount of export in US\$ 19,4 million Rupiah (12,88%). As recorded in the year of 2010 – 2015, the increase level of creative economy is 10,14% each year. Therefore, it can be concluded that culinary sub sector is potentially enough to develop in the future. [3] As in the agricultural sector, the farmers and small

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entrepreneurs who have bargaining power in the competition are supported by the institutional model. [1]

As a new established business in November 2018, this culinary business has a lot factors which obstruct the optimal income to the existing business. Based on the owner, the main problems are such as the change of workers caused by the lack quality of Human Resource, extreme change of the weather, and other operational problems. Therefore, the skill of human resources is still relatively low. In order to increase the quality, an improvement of positive mental and motivation is needed for both the workers and owner. [9] Based on the data, the income of business increases in work days except for the weekend. However, the customers prefer not to eat on the weekend because they don't go to work in those days. Therefore, a feasibility analysis is needed beforehand. According to the previous study, a company that builds its new production plan will need a feasibility analysis in terms of market, technical, and financial aspect using interview and historical data as reference. In this study, the researcher will provide this analysis in a the following chapters. Generally, small companies are still conventional in operating their businesses in view of some aspects; production and marketing. [7] Therefore, an analysis is needed beforehand.

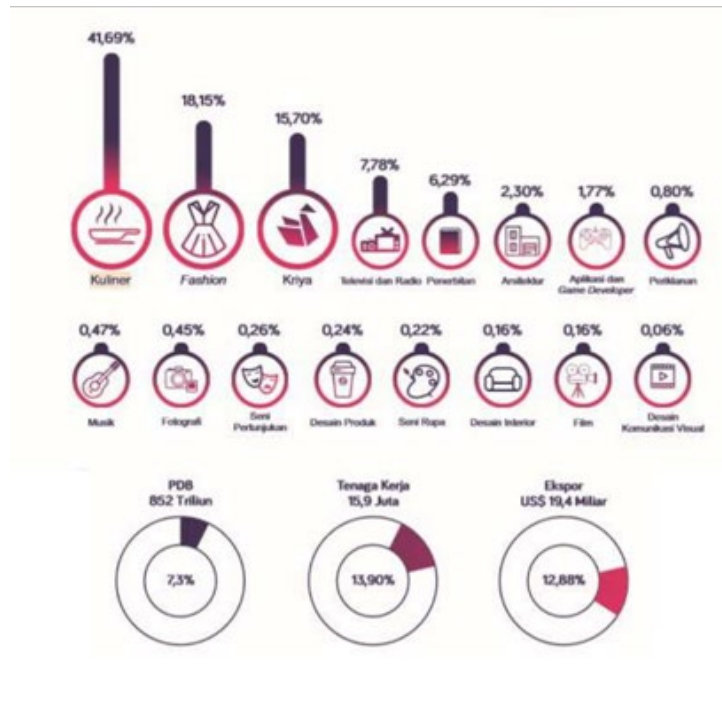


Figure I. 1 Graphic Information of Creative Economy Contribution based on Sub Sector (2016)

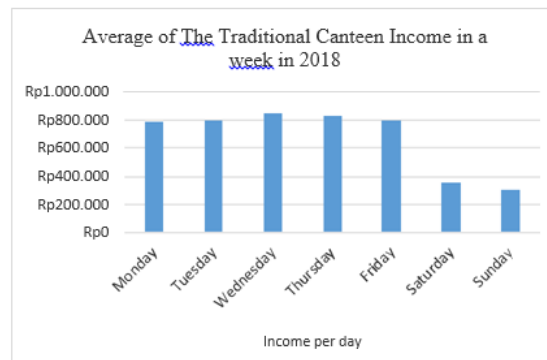


Figure I. 2 Total Income Average in a Year

2. LITERATURE REVIEW

The literature of this method is defined as the description below:

2.1 Feasibility Analysis

Feasibility analysis is a way to decide the feasibility of a project, which studies more detailed about a business that will be established, in order to decide whether it is feasible or not. Generally, feasibility analysis is divided into 3 aspects. These aspects can be elaborated as market aspect, financial aspect, and technical aspect.

A. Market Aspect

Market strategy is one of the most influential things in a company to fulfil its goals in a period of time. As in marketing mix strategy, it increases marketing performance in companies. The statistic used the path analysis and resulted that the elements of marketing mix strategy gave influence to the performance simultaneously and significantly. [6]

These are the elaborated of market aspect in this research:

1. Potential market is a segmentation of customer that has a certain level of desire / need for the certain market so that it has an impact on the intended target.
2. Available market is a group of customers who have access, and are able to fulfill these desires / needs so they have purchasing power for the products / services offered by the market.
3. Target market is a segmentation of customers which is feasible to be offered the products / services by the market because of the high potential in purchasing.

B. Technical Aspect

Technical aspect can be described as a production system, production and facilitation planning process, location determination, human resources management, and investment cost estimation. Production system is an interaction between transformation sub-system from an input data to be processed to an output data. The input data is defined as materials, machines, human resource, capital, and information. Production system scheme can be seen as figure below.

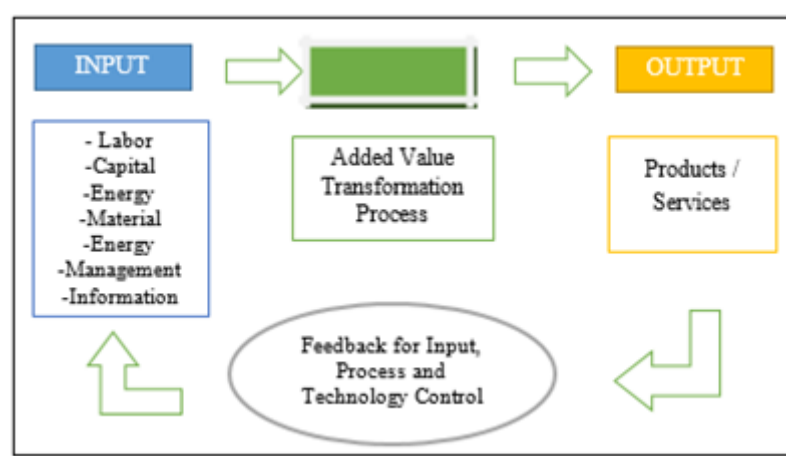


Figure II. 1 Transformation Process Data

Production activity is defined as a process from the raw material into ready-to-market processed products. [10]

C. Financial Aspect

In the feasibility analysis of a business, a standard assessment of a company is set to decide whether it is feasible to develop the business itself.

1. Payback Period (PBP)

Payback period is a technique of evaluating the period (period) of the investment in a project or business. The criteria of the translation of this method are if the Payback Period (PBP) of the business is smaller than the maximum investment return period, then the business is declared feasible to run. The disadvantages of this technique include not paying attention to the concept of time value of money and cash flows that occur after the return period. Following is the calculation model if the net cash is the same every year.

$$PBP = \text{Investment} / (\text{Net Cash} / \text{year}) \times 1 \text{ year}$$

In assessing a business worthy of acceptance or not from the Payback Period (PBP), the results of the calculation criteria are as follows:

- PBP is now worth less than the investment age.
- By comparing the industry average of similar business units.
- Have conformity with the company's targets.
- Net Present Value (NPV)

Based on the formulation outlined above, the criteria from the feasibility analysis are as follows:

- If $NPV > 0$, the business is declared feasible.
- If $NPV < 0$, the business is declared not feasible.
- If $NPV = 0$, the company can determine whether to do business or not. Decisions can be made by criteria other than those specified.

2. Internal Rate of Return (IRR)

Internal Rate of Return (IRR) is a tool to measure the rate of return on internal returns. IRR is a form of measurement of the investment efficiency of a business where the value is greater than There are two methods used to find the IRR, including:

$$IRR = i^2 + NPV1/(NPV1-NPV2) \times (i2-i1) \quad (8)$$

Where:

i1 = interest rate 1 (the discount rate that produces NPV1)

i2 = interest rate 2 (the discount rate that produces NPV2)

NPV1 = net present value 1

NPV2 = net present value 2

The second way to look for IRR is as follows:

$$IRR = P1 - C1 \times (P2-P1)/(C2-C1) \quad (8)$$

Where:

P1 = interest rate 1

P2 = interest rate 2

C1=NPV1

C2=NPV2

Based on the formulation outlined above, it can be concluded:

- If the IRR is greater (>) than the loan interest (MARR), then it is accepted.
- If the IRR value is smaller (<) than the loan interest (MARR), then it is rejected.

2.2 Sensitivity Analysis

Sensitivity analysis is the relative magnitude of change in the measure of merit such as; present worth, caused by one or more changes in estimated study parameters. The sensitivity of a study is defined to mean the relative magnitude of change in one or more factors that will reserve a decision among alternatives. [12]

3. RESEARCH METHODOLOGY

The research methodology can be divided in 6 phases as defined in the figure above. Firstly, the problems, objectives of the research, and the problem limits are identified by the researcher. Next, the data is processed after being collected based on each aspects by the researcher. The method of data collecting is through questionnaires, interview, observation, literature review, and decision. Therefore, the collected data will be processed based on the market aspect, technical, and financial aspect. [2] After that, the research will be concluded in the state of feasible or not, including the suggestions, sensitivity analysis as the end of this research.

Market aspect data collection carried out in this research uses a proportional sampling method to determine the number of targets.



Figure III. 1 Research Methodology

Table III. 1 Proportional Sampling Data [5]

No. Sub-district	District	Total Population		Sample	Data Each	
		per	Total		Sampling	Target
		District	Population	Percentage	per	Area
1	Pasar Baru	15471	132578	100	12%	12
	Gunung Sahari					
2	Utara	20110	132578	100	15%	15
3	Kartini	31919	132578	100	24%	24

4	Karang Anyar	31469	132578	100	24%	24
	Mangga Dua					
5	Selatan	33609	132578	100	25%	25
	Total Amount				1	100

The population determined is the total population in central Jakarta. The number of samples is determined by the formula:

Information:

n: number of samples N: total population

e: error tolerance limit (assumed 10%)

Based on the existing population, and using the sampling formula above, then:

$$n = \frac{N}{1 + N e^2} \quad (13)$$

The number of samples obtained is as much as 99.93 or if rounded up 100 respondents. After the questionnaires were distributed, the data will be tested by reliability and validity using SPSS. With these tests, it can be concluded that valid and reliable instruments can be used in the study.

The following is a test of validity and reliability of the respondents' research data:

Table III. 2 Data Validation Test

Item-Total Statistics				
	Scale			
	Scale Mean if	Variance if	Corrected Item-	Cronbach's Alpha
	Item Deleted	Item Deleted	Total Correlation	if Item Deleted
Quality	23,92000	48,418	,888	,920
Quality_consistency	23,79000	51,925	,834	,926
Service	23,89000	50,240	,887	,921
Price_food_minute	23,85000	51,785	,792	,930
Atmosphere_atmosphere	23,92000	51,610	,867	,923
Campaign_media_sosial	23,88000	54,733	,607	,947
Supporting facilities	23,91000	54,244	,734	,935

Table III. 3 Data Reliability Test

Reliability Statistics	
Cronbach's	
Alpha	N of Items
0,939	7

4. RESULT AND DISCUSSION

Based on the research done, the result of the feasibility analysis of *Nusantara* Cafe is elaborated as: The potential market is the respondent's interests on the products of the business. Based on

the distribution results, the potential market of Cafe Nusantara is 90%. This shows there are 119.321 prospective customers of the business. Available market is defined as the interest and capability of purchasing the products / services offered by the business. This market is a part of the potential market of the business. The available market of this research is 89% of the potential market which equals to 106.195 prospective customers. The target market is taken by consideration of some factors, such as: competitors, investors, human resource, etc. The target market of this research is 1% from the available one because of the capability of this business which is 1062 prospective visitors. Based on the data processing, total cost investment of this business is Rp. 97.355.000. The working capital, which is 2 months period, is Rp 53.944.392, and the cost of legal is Rp 10.000.000. The total capital is by the owner's, equals to Rp 161.299.392.

Total <i>project cost</i> 2019		
Fix Investment	Rp	97.355.000
<i>Working Capital</i>	Rp	53.944.392
The cost of making a notary certificate, SIUP and TDP	Rp	10.000.000
Total	Rp	161.299.392

Figure IV. 1 Total Project Cost

The financial aspects of this study examine in terms of business expenses in the next 5 years. Each type of expenditure owned by the business is recorded in the report in the form of profit, loss, cash flow, balance sheet, and the final result, namely the aspect of business feasibility. The correlation of the three reports resulted in NPV, IRR, and PBP values. The following are the results of Cafe Nusantara's feasibility analysis.

<i>Interest Rate</i>		10,25%
NPV	Rp	56.025.515
IRR		20,8%
PBP		4,2

Table IV. 1 Business Feasibility Analysis

Based on the results of the calculation of the feasibility analysis of the business, the MARR value used is the average deposit interest in Indonesia added to the business risk of 10.25% and the NPV value of Rp 94,166,392 is obtained. The IRR value obtained is in the form of 20.8% and the business can stand with the Payback Period for 4,2 years.

Sensitivity analysis is a calculation carried out to see the strength of the business being run when there are changes in the factors that affect the business directly. This analysis was conducted on the business feasibility of Cafe Nusantara. Changes that can occur are from financial aspects such as increases in raw material costs caused by external factors, a decrease in the level of sales from the business, an increase in labor and operational costs. Therefore, sensitivity analysis tests based on several numbers and obtained in the form of 5% of the decline in sales. This figure is the most influential on business continuity based on the level of business income.

Based on previous research, the risk that has an effect is financial risk. The risk of the most crucial culinary business is financial, so it must be managed better, because the income from culinary efforts influences the sustainability of the business. Things that affect financial risk are mistakes in selling prices, limited funds / capital, promotions, and selling price competition. [11]

5. CONCLUSION AND SUGGESTIONS

Based on the research that has been done, the conclusions taken are an assessment of the feasibility of business investment. The criteria for a viable business are $NPV > 0$, where the $IRR > MARR$ value, and there is a Payback Period value that matches the conditions. Cafe Nusantara has an investment fund requirement of Rp 161,299,392, with an NPV value of Rp 56,025,515, an IRR value of 20,8%, and a Payback Period value of 4.2 years. Thus, the business of Cafe Nusantara is concluded as a viable business to run.

1. Advice for Cafe Nusantara owners:

- a) In terms of market aspects, the owner can find targets and expand the target market from the business, so as to increase the income of the culinary business.
- b) In terms of business operations, the owner can make a standard time from the time of producing food and drinks to serving food and beverages in an effective and efficient time.
- c) From finance, the owner can minimize direct and indirect costs, so that the owner can control expenses from the business.

2. Suggestions for future research:

Looking for secondary data from similar businesses that have been running, so that they can do a deeper comparison of studies.

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