

Financial Feasibility Study: The Development of Shophouse at Sun Safira Regency in Sidoarjo

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Abstract

Financial feasibility study is important to be carried out for a project before the project implementation. The purpose of this article is to study the financial feasibility of shophouses in Housing Sun Safira Regency. A survey method is used to identify the needs of shophouses. For the evaluation of the feasibility studies of investment shop, Net Present Value (NPV), Internal Rate of Return (IRR), and Benefit Cost Ratio methods are employed in this study. As for the payback period of the investment shop used Payback Period. From the calculation results, the residents require the shop as much as 131 out of 159 respondents or 82.39%. And for the answers do not require the shop are only 28 respondents or 17.61% of total respondents. Shop for service functions is the most preferred are Minimarket is selected by the respondents as the most preferred shop service functions, with the turnout of as many as 43 respondents or 32.82%. Investment eligibility shop for the Net Present Value (NPV) obtained a value of Rp. 1,807,460,823.00 with $i = 10.9\%$ per year. For the method of Internal Rate of Return (IRR) obtained 0.450619433 per year or greater than the commercial interest rate of 0.109 per year. As for the method Benefit Cost Ratio (BCR) gained by $3.23 > 1$, so it can be concluded that the construction of shophouses in Housing Sun Safira Regency is feasible because it is considered very favorable. As for the method of calculating the payback period, the investment shop started to make a profit in the year to - 1.84.

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1. Introduction

Population in Sidoarjo has increased rapidly along with the level of the community's economy is getting better Sidoarjo regency. This encourages PT. CHALIDANA Dwi Mandiri, as the contractor and the developer housing which is housed in Surabaya to provide a complex Housing Sun Safira Regency located in the Village area Sidokepong, District Buduran, Sidoarjo district with an area of 66 013 m² and the total number of houses to be built as many as 342 pieces. Home products produced in Housing Sun Safira Regency which consists of a type of house Rome (52/105 m²), Sold out (60/120 m²), Stellar, Tucana, Andromeda (60/128 m²), Dreamland, Kuta, Nusa two (82/144 m²). See site plan of this housing arrangement authors provide an alternative plan for the site plan house located in a residential area next to an area of 1755 m² can be transformed to enable a shop building. This is because housing is no shop building which usually is needed by the consumer. Furthermore, from the above problems authors will try to take account of the shop building when viewed in terms of investment to see some of the things that is of the feasibility of investment, and also for the future return on capital investment. Based on the background described above, issues to be discussed compilers are as follows: 1). Is the construction of this shop is required or not by the citizens? 2). What are the functions desired service at the shop building's residents, if the terms of the needs of consumers? 3). How feasible investment for the construction of shophouses in Housing Sun Safira Regency?

Based on the above problem formulation to avoid deviation from the discussion, it needs to make boundary problem. Is as follows: 1). The only case study on Housing Sun Safira Regency; 2. Aspects

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of the study only on the site plan Housing Sun Safira Regency; 3). Areas used for the conversion of the shop building is located in the front area on the site plan Housing block C-1 Sun Safira Regency; 4). The sample for the survey was done for the citizens of Housing Sun Safira Regency and residents in nearby neighborhoods Housing Sun Safira Regency in this case the citizens of Housing Oma Buduran charm; 5). The number of shop houses will be built based on the availability of land with an area of 1755 m².

2. Review of Literature

Meaning of feasibility or feasibility study is an activity to assess the extent of the benefits that can be obtained in carrying out a business activity / project and is a material consideration in making a decision whether to accept or reject the idea of a business / project that is planned. Understanding feasible in this assessment is the possibility of a business idea / project that will be implemented to provide benefits (benefits), both in terms of financial benefits and in terms of social benefits. Her worthy of a business idea / project in the sense of social benefits do not always describe in terms of financial benefits, this depends on the terms of the assessment. Assess the feasibility of a proposed project aims at studying the proposal from all sides in a professional manner so that later once accepted and executed really can achieve results as planned. The eligibility criteria are closely linked to success, and it will be different from the one and the other viewpoints and interests. For example, the public will look at the success of the project construction of the plant in terms of how far they can participate fill out employment and business activities. For owners of private projects, the emphasis is placed on the success of the financial and economic aspects. While the government has a much broader criteria, such as economic growth, public welfare, and also encourage private initiative.

Except as mentioned above eligibility criteria also depends on the kind of project. The bigger the project, the greater the funds that will be planted, it will become even wider range and more in the nature of the assessment. The criteria of success in this case focused on the success of the project itself seen from the financial and economic aspects. So here assess whether the project is quite favorable compared with the funds and effort to be issued. This does not mean ignoring the assessment of other aspects such as marketing, engineering and engineering, environmental impact and others. These aspects need to be seen as providing an important input to the financial and economic problems of investment projects.

The feasibility of a project can be divided into 2 parts, the project is really feasible and viable projects but conditional. The explanation is as follows:

1. Eligible Projects

The project can be feasible if the implementation has met all the requirements or conditions which have been set as to have a clear business license, the project passed the environmental impact assessment (EIA), well worth the investment feasibility calculations.

2. Eligible Projects Conditional

The project can be said to pass the conditional if the implementation happens one of the activities which do not meet the requirements or conditions. So from this problem should be quickly sought a solution that the project could be feasible. For example, a project may not be feasible in the calculation of the feasibility of the investment, then the solution can be given is to seek bank loans that have lower interest rates than bank interest rates that have been there before.

2.1 Definition of Sample (statistics)

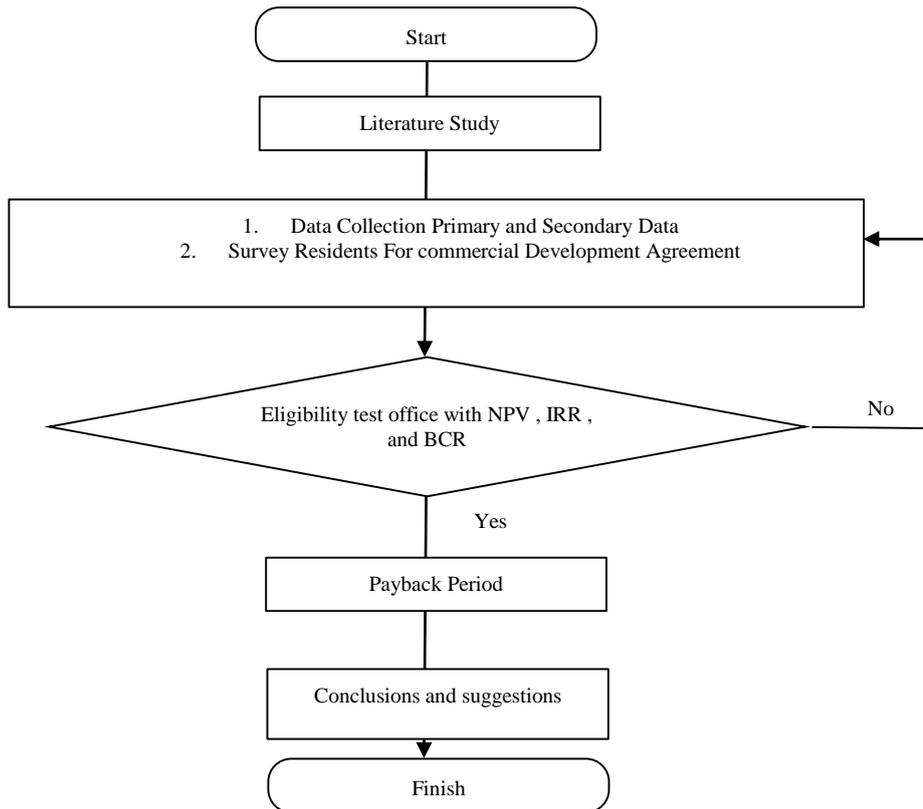
Sample (sample) is a part of the population that wants researched, viewed as an estimate of the population, but the population sendiri. Sampel not be considered as representative of the population that the results represent the overall symptoms diamati. Ukuran and diversity of samples determines

whether or not a sample which diambil. Terdapat two ways of sampling, ie at random (random) / probability and random (non-random) / non-probability.

2.2 Understanding Questionnaire

The questionnaire is a list of written questions which had been developed previously. The questions contained in the questionnaire, or the questionnaire is quite detailed and complete and usually provide the answer choices (enclosed questionnaire) or provide an opportunity respondents freely (open questionnaire).

3. Research Methodology



4. Data Analysis and Discussion

4.1 Descriptive Analysis

From the results of the survey for sampling the respondent has been done to the citizens of Housing Sun Safira Regency and nearby residents around Housing Sun Safira Regency in this case the citizens of Housing Oma Charm Buduran on 09 s / d June 13, 2015 concluded that the construction of shophouses on Housing Sun Safira Regency is required by the residents. It is when taken conclusion that states agree to the construction of the shop as much as 131 respondents, or by 82.39%.

4.2 Respondents Sample Results For commercial Needing Answers

From the results of the survey that was taken on 131 respondents (82.39%) who had agreed to the construction of this shop is minimarket (32.82%), pharmacies (14.50%), course tutoring (13.74%), depot food and beverages (8.40%), bank / ATM services (6.11%), internet and playstation rental (6.11%), a motorcycle shop (3.82%), laundry services (3.05%), salon hair cut (3.05%), rental

leasing CD / DVD (2.29%), copy shop and bindery (2.29%), electrical stores and building materials (2.29%), counter HP and contents pulse (1.53%).

4.3 Investment feasibility of commercial development

4.3.1 Determine the Initial Investment Cost

From large data Initial investment costs (land) development projects shop in Housing Sun Safira Regency obtained Rp. 1,671,738,750.00.

4.3.2 Determining the Cost of Capital

Based on the analysis of the total capital known shop in Housing development project Sun Safira Regency consists of two kinds of capital that private capital amounted to 60% of the capital cost of the project investment and bank loans amounting to 40% of the investment cost of the project. While interest on bank loans amounting to 12.25% and the company's own capital interest after tax is expected at 10% per year. So, from the above calculation can be obtained by value Cost of Capital (COC) of 10.9% per year.

4.3.3 Determine the Cost of Installment Loan Bank

The investment costs for development projects of this shop is a combination of private capital and loan capital of banks. So that investment funds this project was obtained Rp. 1,671,738,750.00. For the cost of bank loans to be known as Rp. 668,695,500.00 with bank interest at 12.25% per year and calculations using the uniform interest rate on bank lending over the past two years or 24 months.

From calculations it can be seen that the loan installment to be paid to the bank for the first year and the second year of Rp. 380,354,000.40 of a bank loan of Rp. 668,695,500.00. So in the second year bank loan has been paid off.

4.4 Determine Cost of Revenue

The cost of the company's revenue generated from the sale shophouse 17 units, assuming a fixed sales price shop during sales. For the prediction of 1 unit sales price calculation shop can be seen as below. Details as follows:

- 1) Then, the overall cost of the construction of the shop unit of the above calculation obtained Rp. 501,614,000.00. For other costs amounted to 3%, shop contingency fee of 5% and profit for the developers of 15% of the overall cost of development shop. Thus obtained other costs amounting Rp.15.048.420,00. Shop for contingency fee Rp. 25,080,700.00 and to profit for the developer Rp. 75,242,100.00;
- 2) From the above results, it is known to the selling price of the fruit shop unit is as follows
Rp. 501.614.000,00+ Rp. 15,048,420.00 + Rp. 22,870,825.00 + Rp. 75,242,100.00 = Rp. ~ USD 616,985,220.00. 617,000,000.00.

From our analysis to explain that to the value of the cost of development we assume the same shop, because it uses the Budget Plan The existing commercial development, which is derived from the developers that PT.Chalidana Dwi Mandiri. As for value Redemption fee we assume for 4 years with the same value on the grounds calculations using the existing data and do not know the value of taxes, interest rates, and the unit price in the years to come. So we came to the conclusion to use the value of the smallest value in the first year as a basis perhitungan.Untuk sales target shop building we use data from the targeted marketing of the developer in this case PT.Chalidana Dwi Mandiri.

4.5 Determining Expenditures

Company expenses derived from the installment cost of investment and business costs such as labor costs and the cost of building maintenance shop. Cost of maintenance shop building here is the cost

of maintenance after the construction of the shop is completed, usually often called the period of the complaints of consumers shop on the work that has been completed and the deadline for 30 days from the day the construction was completed. Details of the cost of business as follows:

The cost of bank loans in the first installment = Rp. 380,354,000.40.

Production costs in the first year of the plan assumed shop sales by 4 units units @ Rp. 249,650,000.00 = Rp. 998,600,000.00.

Care costs per unit of shophouses at 2% of the cost of getting up shophouses.

4.6 Determine the Cost of Tax

Value-added tax (VAT) per year on the project is subject to a 10% , and income tax (VAT) per annum is charged at 5 % .

Determine ATCF (After Tax Cash Flow or Cash Flow After Tax)

Table 1. Calculation Table ATCF (after tax cash flow)

Year	Income	Expense	BTFCF	ATCF
1	Rp 2.468.000.000,00	Rp 1.398.926.000,40	Rp 1.069.074.000,60	Rp 908.712.900,50
2	Rp 2.468.000.000,00	Rp 1.398.926.000,40	Rp 1.069.074.000,60	Rp 908.712.900,50
3	Rp 2.468.000.000,00	Rp 1.018.572.000,00	Rp 1.449.428.000,00	Rp 1.232.013.800,00
4	Rp 3.085.000.000,00	Rp 1.273.215.000,00	Rp 1.811.785.000,00	Rp 1.540.017.250,00

4.7 Calculating Investment Feasibility

- a) Method Using NPV (Net Present Value)

So that the results can be known accumulation calculation of the project NPV value of Rp . 1,807,460,823.00 . From the results of this calculation in mind that the NPV value indicates a positive value so that the project is considered feasible or profitable .

- b) Method Using IRR (Internal Rate of Return)

The research result shows that this project is feasible or advantageous because the IRR obtained by 0.450619433 per year or greater than i commercial of 0.109 per year .

- c) Using the method of BCR (Benefit Cost Ratio)

From the above calculation results obtained that the BCR value = 3.23 > 1 , then the project is feasible.

- d) Calculating the Return Period (Payback Period)

From the above calculation is known that the payback period shop in Housing development Sun Safira Regency occurred in years - 1.84.

5. Conclusions

From the results of the survey with a sample of 159 respondents conducted in Sun Safira Regency housing residents, and residents Housing Oma Buduran charm can be concluded that the states agreed to the construction of the shop as much as 131 respondents, or by 82.39%.

Service functions in the shop that has been chosen by the citizens of Sun Safira Regency Housing and Housing residents Oma charm consecutive Buduran based on the results of the survey that was taken on 131 respondents (82.39%) who had agreed to the construction of this shop is minimarket (32, 82%), pharmacies (14.50%), course tutoring (13.74%), depot of food and beverages (8.40%), bank / ATM services (6.11%), internet and playstation rental (6, 11%), a motorcycle shop (3.82%), laundry services (3.05%), salon hair cut (3.05%), rental leasing CD / DVD (2.29%), copy shop and bindery (2.29%), electrical stores and building materials (2.29%), HP counters and pulse content (1.53%).

From the calculation of the feasibility of the project by using the Net Present Value (NPV), Internal Rate of Return method (IRR), and methods of Benefit Cost Ratio (BCR). For Net Present Value (NPV) were obtained Rp. 1,807,460,823.00. For value Internal Rate of Return (IRR) obtained by 0.450619433 per year or greater than the commercial interest of 0.109 per year. As for the value of Benefit Cost Ratio (BCR) gained by $3.23 > 1$. Thus, this project can be said to be feasible or profitable.

Results payback period shop in Housing development Sun Safira Regency occurred in the year to - 1,84. Sehingga this project can be said to be a viable and profitable in a very fast time.

6. Reference

- [1] Azwar,1996; Mukono,2000.Definisi Perumahan Dan Rumah.
- [2] Dody Wijaya.Pengertian Populasi Penduduk
- [3] Yacob Ibrahim. 1998 : 1.Pengertian Studi Kelayakan (Feasibility Study) ~ Info Dan Pengertian.
- [4] Wikipedia bahasa Indonesia.Ruko-Wikipedia bahasa Indonesia,ensiklopedia bebas.
- [5] Maslow,A,H.1943.Kebutuhan Manusia Menurut Maslow.A Theory of Human Motivation .
- [6] Wikipedia bahasa Indonesia.Sampel (statistika)-Wikipedia bahasa Indonesia
- [7] Sunariyah.2003:4.Investasi;PengertianDasar,Jenis dan Manfaat.
- [8] Roynolta.7 Mei 2011.Sumber dan jenis Pendanaan Proyek.
- [9] Condro Kacon.25 Okt 2012.Suku Bunga Nominal dan Suku Bunga Efektif.
- [10]Pujawan, I Nyoman. (2012), *Ekonomi Teknik Edisi Kedua*, Surabaya:Guna Widya.
- [11]Soeharto, Iman. (1995),*Manajemen Proyek Dari Konseptual Sampai Operasional*, Jakarta: Erlangga.
- [12]Ardhana12.8 Feb 2008.*Teknik Analisa Data Dalam Penelitian*.
- [13]Kasmir dan Jakfar.2007:85.ANALISA KELAYAKAN INVESTASI.