

## Business Investment Analysis Integration of Y only Glass Processor and Applications

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**ABSTRACT:** In 2021, the Industry sector is increasing rapidly with the value of construction rising high and the growth of apartments and occupancy to increase the need for glass processors and applications so that this increase makes an opportunity for Yonly Glass business. This makes business increasingly attractive, so companies need to create and plan financial strategies, especially investment strategies. To capture this investment strategy, the company must have added value to financial investment planning. PT Yonly Glass, as a company engaged in Glass Processors and Applications, needs to have a sound financial strategy to compete with competitors. To compete and survive requires concentration on product development and analysis of investment strategies and economic efficiency. The study uses inductive qualitative methods where all sample data and measurement IRR, NPV, PP, and ROI show positive value. The business is viable to run and be further developed. The value of the investment by calculating the IRR, NPV, and payback period of the business plan provides an idea that the glass processor and application business is still excellent in times of pandemics and crises, so this financial strategy is very appropriate and appropriate like Yonly Glass.

**Keywords:** InvestmentAnalysis, NPV, IRR, ROI, Payback Period.

### I. INTRODUCTION

In 2021 the Industrial Sector is expected to increase rapidly, with the value of construction reaching Rp 16.76 trillion or up 48.13%. The sentiment of construction actors on the condition of the Indonesian construction market 2021 is based on a survey conducted by BCIEconomicson 350 respondents consisting of developers, architects and consultants, contractors, and sub-contractors in Indonesia. The phenomenon and changes in lifestyle that increase and all-around instant make apartment development in Indonesia continue to grow. In the inner and outer areas of Jakarta, the apartment market is still quite tempting. Until now, there are a total of 166,200-unit apartments located in the Jakarta area. This figure is included with flats that are ready to live or still in the process of development. Projections for 2019 to 2023 are likely to increase to 50,000 units. Meanwhile, in the area outside Jakarta or around Bodetabek, the total supply of 97,200 units in the Bodetabek area is dominated by units still under construction. This figure is predicted to grow to 129,000 units from 2019 to 2022—twice as many as the Jakarta area.

Based on the value of building construction in 2016 was 153.08 trillion, decreased in 2017 which was 150.36 trillion, fell again in 2018, which was 140.51 trillion. After experiencing a decrease for three consecutive years from 2016-2018, the value of building construction increased by 4.9%, 147.77 trillion, and in 2020, again experienced an increase of 2.1%, which is 150.7 trillion. Then the projection in 2021 can increase by 6.7%, which is 160.8 trillion. Large-scale social restrictions (PSBB) that have been in place for quite some time have made the potential demand for property products in almost all sectors into a large market that immediately enters the market. Other assumptions that make 2021 more optimistic are Indonesia's economic growth of around +5%, the COVID-19 vaccine program that will begin in mid-2021, and the implementation of omnibus law. These three things are the main drivers to strengthen purchasing power, increase market confidence and confidence, public safety, and encourage better investment opportunities in the property sector. This applies to all property sectors, whether residential, office, shopping center, industry, etc. The combined capacity of sheet glass production from each manufacturer found an increasing trend from year to year (2016-2020). This is due to the increasing need for sheet glass from both local and export requirements.

PT. Yonly Glass is a company engaged in the glass industry with activities to process sheet glass according to the design of the main contractor and the installation (applicator) of Glass in its building projects. PT. Yonly Glass is present to provide convenience in serving the needs of Glass in the massive demand for high

rise *building* construction, in this case, the structure of Apartments, Housing, Hospitals, and office buildings throughout Indonesia. In addition, it can also give consumers a choice in determining the needs and services and tariffs that are following their needs and affordable PT. Yonly Glass also has experts who are professionals in glass processors and glass installation on buildings. To increase the business required analysis of business feasibility assessed using DCF (*discounted cash flow*) with NPV parameters. This model will ultimately show the considerable net value of the investment to investors.

Other calculations are IRR, ROI, and discounted payback period, which provides information that can support business feasibility analysis. (Harmono 2016). With this feasibility analysis, researchers tried to create a study entitled "**Business Investment Analysis integration of Yonly Glass Processors and Applications.**" The purpose of this research is to provide an overview of the investment analysis conducted by Yonly Glass, including the parameters used and the justification for conducting a feasibility analysis using Net Present Value (NPV), Internal Rate of Return (IRR), Return on Investment (ROI), and Payback Period (PP) (Marsiwi et al., 2019). In addition, the purpose of this research is also to increase innovations related to products, processes, organizations, and business models for companies to always be ready for future market changes (Prasetyo et al., 2019)

## II. LIBRARY REVIEW

### Net Present Value (NPV)

Net Present Value (NPV) is a net financial assessment that exists in the company after deducting other costs so that the value of the company's existing added or lack of money can be used as a reference to assess the viability or not of the company's finances. In other words, the assessment made for Net Present Value (NPV) is a net financial cash flow. Understanding Net Present Value (NPV) in the form of Net Present Value (NPV) calculation activities in a company needs to be done by the company's competent financial personnel. This is because the miscalculation of existing values can affect the company's level of small profit income. Net Present Value (NPV) can be associated with company funds that experience addition when existing funds are no longer mixed with investment funds. This can be attributed to the total net capital obtained by the company with added net income. For this reason, According to Net Present Value (NPV) is interpreted as a financial analysis used to determine whether or not the business made by the company is seen through the present value of the net cash flow to be received by the company concerned compared to the present value of investment capital issued by the company. This is the financial analysis of the company reviewed according to investment expenditures made by the company

### Internal Rate of Return (IRR)

IRR or Internal Rate of Return is an evaluation instrument used to decide whether a capital owner wants to invest or not, where the  $IRR >$  the level of profit hinted, the project is accepted, but if the  $IRR <$  the required level of profit, the project is deemed unacceptable. An IRR is more an indicator of the efficiency of an investment, as opposed to npv, which indicates the value or amount of money. IRR is an effective compounded annual return rate generated from an investment or the yield of an investment. A project/investment can be made if the rate of return is greater than the return received if we invest elsewhere (banks, bonds, etc.) (Kusuma et al., 2021). So It is necessary to compare the IRR. to other investment alternatives. IRR has disadvantages where IRR is commonly used for decision-making for single projects instead of mutually exclusive projects (projects that eliminate each other). For mutually exclusive projects, the NPV criteria are more dominantly used where projects with larger NPVs will be selected even if they have a smaller IRR. From the graph, a project will probably have several discount rates that make the value OF  $NPV = 0$  (there is negative net income between positive net income years), so the IRR value can be more than one, or we are faced with several choices of IRR values. In terms of reinvestment, IRR also has weaknesses, so that MIRR (Modified Rate of Return) is used. Although academically, NPV is more dominantly chosen, surveys indicate that executives prefer IRR over NPV. This is because managers or capital owners are easier compare investments/projects of different magnitudes in the form of % rate of return (IRR) compared to the amount of money (NPV). (Harmono 2016).

### Payback Period

The payback period is the method most often used by business people to measure the length of investment funds reinvested as before. Therefore, the calculation results are expressed in units of time, i.e., years or months. The Payback Period method is used to look at the payback period of capital that has been issued. The payback period is a period needed to recoup investment expenses (initial cash investment) using cash flow. In other words, the Payback Period is the ratio between initial cash investment with cash flow which results in a unit of time. This method has a disadvantage that ignores the time value of money (time value of money). The faster the return-on-investment period, the smaller the investment risk, and the investment project are worth running.

Conversely, the longer the return, the greater the investment risk, and the investment project is less feasible / not worth running. (Harmono 2016). To address one of the method's shortcomings, specifically that it ignores the time value of money, it is tried to improve the method by changing cash inflow into the present value of the investment plan and then calculating the payback *period*. Thus, the cash flow used is cash flow that has been discounted based on *interest rate / required rate of return or opportunity cost*

### **Return on Investment (ROI)**

*Return on Investment (ROI)* is a ratio measuring a company's success in generating shareholders' profit and loss. Therefore, ROI is considered a representation of a shareholder's wealth or the value of a company. Let's look at the existing ROI trends. It can be seen that the company, in generating profits for shareholders, experienced an increase that appeared in the rising value of the ROI ratio. (Harmono 2016). *Return on Investment (ROI)* on Y only Glass is a ratio measuring Arena Corner's success in generating profit and loss in 5 years. Thus, the ROI of Y only Glass is a form of representation of the wealth of Y only Glass and the value of the Y only Glass company. Let's look at the existing ROI trends. It can be seen that the company, in generating profits for shareholders, experienced an increase that appeared in the rising value of the ROI ratio. (Harmono 2016)

## **III. METHOD**

This study uses qualitative research methods where the data obtained by the author through observation, analysis of documents, and records or analysis of reports are used as a basis in the calculation of his research (Susanti et al., 2020). Furthermore, the author of nature analyzed the feasibility of PT Y only Glass's business investment using several methods of calculating feasibility. This is because the miscalculation of current value can affect the company's significant level of small profit income. As a result, Net Present Value (NPV) is used in financial analysis to determine whether or not the business being conducted by the company is profitable. This is determined by comparing the company's present value of the net cash flow to be received to the current value of the investment capital issued by the company over the next one to five years. *Return on Investment (ROI)* on Y only Glass is a ratio measuring Arena Corner's success in generating profit and loss in 1-5 years. *The Payback Period* method on Y only Glass issued to measure the length of investment funds that have been used to be able to return for 1-5 years. At the same time, the Internal Rate of Return method measures the level of efficiency and the status of the cash value in the future so that the value used as a benchmark is above the capital.

## **IV. RESULT AND DISCUSSION**

### **Investment Feasibility Analysis**

Investment feasibility analysis can be understood as an action taken to determine the prospects of an investment project that underlies the decision-making accepted or rejected investment. Before making an investment decision, it is essential to conduct a feasibility analysis to avoid investing in unprofitable projects or activities. To determine the viability of an investment, there are at least four methods carried out by PT Y only Glass, namely ROI, NPV, PP, and IRR. Based on the measurements and calculations conducted by PT Y only Glass, the following research results were obtained.

### **Net Present Value (NPV)**

#### **Calculation of Net Present value**

PT. Y only Glass conducts an investment feasibility assessment with an NPV approach calculated from the difference in the present value of the investment with the expected net cash flow of the project or investment in the future or a specific period. If: NPV value > 0, means the acquisition to be executed, projected to bring benefits to the company, then the Project is recommended to run. If: NPV value = 0, it means that the investment to be carried out is anticipated to bring no profit or loss for the company, then it is necessary to discuss further other benefits obtained if the investment continues. If: NPV value < 0 means the acquisition to be executed projected to bring losses for the company, then it is not an investment, so the project is recommended to be canceled.

Table 1. Net Present Value

Year	Ct	r	(1 + r) t	NPV
1	43,875,000,000	0,035	1,035	42,391,304,348
2	51,942,515,625	0,035	2,070	25,093,002,717
3	47,858,162,000	0,035	3,105	15,413,256,683
4	65,948,363,800	0,035	4,140	15,929,556,473
5	76,171,246,956	0,035	5,175	14,719,081,537
<b>Total</b>				113,546,201,759
<b>C0</b>				50,000,000,000
<b>NPV</b>				63,546,201,759
<b>IRR</b>				3,85%

From the results of calculations, the company's NPV for five years then the NPV value is Rp 63,546,201,759 so that the results of NPV > 0 means that the investment made provides benefits for the company then The project is feasible..

**Internal Rate of Return (IRR)**

The calculation of the IRR can be the basis of whether an investment is worth it or not. If the analysis of the IRR is greater than the interest rate, then the investment plan can be continued. From the results of the calculation of IRR Yonly Glass, the value of IRR is higher than the interest rate set, then the investment that will be made will be assessed will return capital.  $IRR = r1 - (NPV1 \times (r2 - r1) / (NPV1 - NPV2))$ . The results of the IRR calculation conducted by PT Yonly Glass resulted in an ROI value of 3.85% means that the VALUE of the IRR is greater than the set interest rate, so that This investment may be investing strategy may be maintained. Increased.

**Payback Period (PP)**

The *payback Period* measures the speed of return on investment—units of measure produced in the form of time. If the PBP value is faster or shorter than required, it means that the investment has eligibility. Conversely, if the PBP value is slower or longer, it indicates that it does not look like an investment. Y only Glass established Payback Period within four years. Based on calculations carried out by Y only Glass, payback period or investment period of 1 Year 1 Month 18 days.

**Return on Investment (ROI)**

ROI is used in companies as a measure of management efficiency. This ratio is quantified by percentage. If the ROI is negative, the investor can reconsider his investment because the investment is worth a loss. Jill ROI is positive, which means it provides benefits.

Table 2. Return on Investment

Years	Return on Investment	Remarks
1	778%	Positive
2	939%	Positive
3	1071%	Positive
4	1252%	Positive
5	1462%	Positive

On the *Return of Investment* (ROI) table, it appears that the first year has a positive percentage of 778 percent during the investment year. This explains that the business is quite attractive for investors to make investments with traditional accounting calculations. Furthermore, in the second year with a positive percentage value of 939 percent during the second year of acquisition. In the third year, return of investment with a positive percentage value of 1071 percent. And the fourth-year return of investment positive percentage value of 1252 percent, and the fifth-year return of investment positive percentage value of 1462 percent. This explains that this business is calculated with Meticulously worth running.

The ROI calculation of PT Yonly Glass from year 1 to year 5 shows a positive number so that this business can provide profits and can be continued and run.

## V. CONCLUSION

From the results of net present value, payback period, Internal Rate Return and Return on Investment in years 1-5, then the conclusion of this study explains that the processor business and Y only glass application Glass is a plan and investment analysis using Net Present Value (NPV) in the positive category and worth running because many companies are not able to utilize good investment opportunities in projects with net present value. The analysis of the Internal Rate Return (IRR) method also shows a positive value. In addition, Return on Investment (ROI) also indicates a positive value with an average above 20%. At the same time, this business's Payback Period (PP) also shows a positive value with the payback of 1 year, one month 18 Days. Overall, this analysis provides good information to investors to provide their investments to Y only Glass. In addition, for further research, it is necessary to examine other fundamental factors such as cost factors and asset structure or depreciation that can impact investor interest in investing in Y only Glass.

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