Evaluation of Property Investment
(Case of Buy or Build Commercial Office Building in Jakarta’s CBD Area)

Juwita Novitasari and Raden Aswin Rahadi

**ABSTRACT**

Financial security plays an important role in the company’s sustainability. Property is one of the financial security mediums and at the same time also as the investment medium. Not only the medium but also the investment destination is very influential in the result. Therefore, Jakarta as the capital city of Indonesia and as the centre of economic activity has a very big potential market. Jakarta is divided into 5 administrative cities, and CBD as the prime area is located in the golden triangle of Jakarta specifically in South Jakarta.

BPG Corporation is one of the companies based in Jakarta, with the intention to strengthen its financial security. The company assesses by the valuation to investing in a property sector, which faces two choices whether to buy or to build from the ground.

This study will use the Discounted Cash Flow method as the valuation tool to predict the risks, advantages, and weaknesses of the company’s financials. The result is that the buy option is more beneficial to the company with current available equity. IRR of the buy option has ranged from 8% to 13% and the NPV indicates also positive figures.

**Keywords:** Financial Security, Investment, Property, Valuation.

**I. INTRODUCTION**

Financial security has the biggest role in terms of the financial condition of a company. Fraser (1984) stated that the medium is used in particular properties and assets. The source to finance the financial security comes from debt retained earnings or new equity funds. Properties and assets are classified as also the medium of an Investment, which can be an asset or item acquired with the purpose of generating income or appreciation. Moreover, buying property has more stability compared to buying the stock market as an active asset. The type of commercial property comes in many shapes for instance offices, shops or retails, industrial or warehouse, leisure premises, residential, also farms. Rock et al. (2019) found Office buildings are the most significant building type in terms of emission-reduction potential. Yet, little research has been undertaken to examine the barriers faced by building operators in transitioning to a green operation of the office buildings in their care. Wadu Mesthrige (2014) suggests a strong response to office development starts with the lagged land supply and office space stock. The common practice is the landlord receives the income in the form of rent and monitors the capital value. On the other hand, the occupier is the party who rents or uses the property. Therefore these two types of value are connected in terms of the property which is used for the business will sustain the investment value.

Likewise any other investment, there is also a downturn in property investment. A long period of vacancy brings poor investment for its investors. Thus, the property investor responds to examine the portfolio in order to better understand how sustainable it is and the extent to which low levels of sustainability might present a particular risk, and/or influence expected returns. Hence, making this decision requires a clear assessment of the sustainability of the property asset and a transparent and reliable means of quantifying that assessment in terms of property worth.

One of the key issues is deciding the investment destination. Asia Pacific predicted in the next 2 years it will grow its GDP up to 4.5% per year. Some drivers that trigger the growth include maintaining an ultralow interest rate, a record amount of dry powder, and intensified focus on capital deployment by investors. While some countries are still beaten by the pandemic, Indonesia is one of the countries which has been in quite a recession since the 2nd quarter of 2021. Jakarta is the capital city of Indonesia, yet Jakarta as the central economy of Indonesia has reached 11,074,811 its population yet at the moment the capital city of Indonesia. As the biggest top 30 highest population in 2021 brings Jakarta as one of the captive markets of the investment destination. Jakarta has five administrative cities. One the well known as the prime area or called the golden triangle of Jakarta is located in South of Jakarta. Along with the government priority, property investment is also inline and will have big opportunities.

According to the market insight from Cushman & Wakefield Indonesia as the property consultant, Jakarta’s CBD area has the highest return in terms of transaction, the rental basis and the location wise. The projection has shown...
that in 2026 the occupancy rate will reach a healthy level, 85%.

The purpose of this research is to evaluate the decision of property investment made by BPG Corporation in Jakarta which faced two decisions, whether to buy or to build.

II. LITERATURE REVIEW

A. Build VS Buy

Cross F (1854) has written regarding the property as a desirable investment and developed the idea of whether it is best to buy or build. Buy option is very desirable and enjoy the benefits arising therefrom. Moreover, if the property has tenants prior to the transaction, the purchaser or the investor ensures that maintenance will continue as before and the service remains the same. It means no decrease in the respectability of the situation of the property. However, there is also the possibility of the property being left out with some bad condition in which the new owner has to re-constructed accordingly. Roben (2020) argued that sustainable investment often involves higher up-front costs to preserve building life and therefore residual value in the long run. Therefore, build sustainably and make them convertible to other land uses, thus extending useful life. On the other side, the Government is reviewing the planning system as it is too legalistic, narrowly confined to land use, slow, and out of touch with the needs of people, businesses, and developers (Rhodes & Wilkinson, 2006). The Green paper indicates the planning process will be more developer friendly resulting in fewer unnecessary delays which add to costs and can threaten the viability of developments (DETR, 2000a). Chang and Ko (2013) integrated the fuzzy set theory through a multi-objective programming approach, in order to measure the correlation between land use and future urban developments.

B. Conceptual Framework

This framework guides deeper research between buying or building, which is the problem over the research. In this research, the author is going to analyze how to differ the process of both options. Through this framework, the author will provide a detailed process. Yet, this framework helps the author to get the picture of the research.

Fig. 1. Conceptual Framework.
C. Cost Benefit Analysis

French engineer Jules Dupuit (1804–1866) has a method to assess how the investment is worthwhile. Mosteau and Jacob (2008) found by comparing all the expressions in the common measurement unit, monet, and discounted at a certain moment in time. In property investment, cost-benefit analysis can be used to compare the capital budget versus the capital income in order to recover the initial budget. The cost will be divided into different stages which may burden the investment decision. The benefit is not limited to revenue, an active asset, valuation, and branding of the company. The final step is calculating the net present value, to know the difference between total cost and total benefit after taking into account all investment decisions.

Researchers have discussed methods where the payback period must be determined by following a certain formula. The first primary capital investment criterion to be followed is the payback period, which is determined by the discounted profit sum and investment costs. Therefore, the options modeled in investment decision. The benefit is not limited to revenue, an active asset, valuation, and branding of the company. The final step is calculating the net present value, to know the difference between total cost and total benefit after taking into account all investment decisions. The value of the investment can be analysed similarly to financial options using the Black-Scholes model or other techniques. Therefore, the options modeled in investment projects increase the value of the original investment (Kalhagen & Elnegaard, 2002). The shape of the NPV ratio distribution is important for real option valuation methods. The revised NPV ratio is used to combine two random variables – i.e., the discounted profit sum and investment costs – together. This must be done when using analytical option valuation methods that are not developed for multiple uncertainties (Varoutas & Riihimäki, 2009).

D. Discounted Rate

Sykes (1975) found that only 19% of UK companies used DCF methods to evaluate leases. Colin Drury (1989) stated that the method of financing a specific project is not considered when making capital investment decisions. Instead, the financing aspects are incorporated into the appraisal by discounting a project’s cash flows at the weighted average cost of capital (WACC). The WACC represents the minimum rate of return necessary to satisfy the returns demanded by shareholders and the providers of debt capital. Hence, the study will use the qualitative approach, observation, and analysis aims to enrich the theory. Hence, the study will compare each buy and build option to maximize the investment decision. Below is the information table of the different buy and build options.

III. Research Methodology

This study will use the qualitative approach, observation, and analysis aims to enrich the theory. Hence, the study will compare each buy and build option to maximize the investment decision. Below is the information table of the different buy and build options.

### TABLE I. BUY OPTION INFORMATION

| Type of Unit | Location | Whole Building | Office One |
|--------------|----------|----------------|------------|
| Kuningan     |          |                |            |
| Lot 7        | Kuningan |                |            |
| Lot 31-32    | MT Haryono |                |            |

| Land Area (sqm) | Site Coverage | Price (in Mio) | Land Price (in Mio) | BPHTB fee (5%) | Notary fee (0.015%) | Price /m2 (in IDR/Mio) |
|-----------------|---------------|---------------|---------------------|----------------|---------------------|------------------------|
| 6,183           | 7.1           | 4             | 4.5                 | 8.66           |                     | 41.95                  |
| 7,877           | 45%           | 45%           | 45%                 | 67.5           | 115                 |                        |
| 12,046          | 639,215       | 393,850       | 813,105             | 1,339,060      |                     |                        |
| 11,644          | 32,461        | 19,693        | 40,655              | 66,953         | 201                 |                        |
| 43,899          | 97            | 59            | 122                 | 200            | 100,837             |                        |
| 54,207          | 8,780         | 6,302         | 10,841              | 20,167         |                     |                        |
| 20,670          | 35,119        | 25,206        | 43,366              | 80,670         |                     |                        |
| 161,339         | 70,239        | 50,413        | 86,731              | 161,339        |                     |                        |
| 1,452,053       | 632,150       | 453,715       | 780,581             | 1,452,053      |                     |                        |
| 1,613,393       | 702,389       | 504,128       | 867,312             | 1,613,393      |                     |                        |
| 3,019,606       | 1,384,162     | 917,730       | 1,721,194           | 3,019,606      |                     |                        |
| 867,312         | 29,852        | 21,425        | 36,861              | 68,569         |                     |                        |
| 42.83           | 46.37         | 42.83         | 46.69               | 44.04          |                     |                        |

### TABLE II. BUILD OPTION INFORMATION

| Lot 7 (Kuningan) | Kav. 31-32 (MT Haryono) | Land at S. Parman | Land at Mega Kuningan |
|------------------|-------------------------|-------------------|-----------------------|
| Land Area (sqm)  | 6,183                   | 7,877             | 12,046                | 11,644               |
| Site Coverage    | 45%                     | 45%               | 45%                   | 45%                   |
| Price (in Mio)   | 105                     | 50                | 67.5                  | 115                   |
| Land Price (in Mio) | 649,215              | 393,850           | 813,105               | 1,339,060             |
| BPHTB fee (5%)   | 32,461                  | 19,693            | 40,655                | 66,953                |
| Notary fee (0.015%) | 97                     | 59                | 122                   | 201                   |
| Max Building Size (sqm) | 43,899               | 31,508            | 54,207                | 100,837               |
| Estimated Basement | 8,780                 | 6,302             | 10,841                | 20,167                |
| Estimated Commercial area | 35,119                | 25,206            | 43,366                | 80,670                |
| Construction cost (Basement) | 70,239               | 50,413            | 86,731                | 161,339               |
| Construction cost (Commercial) | 632,150              | 453,715           | 780,581               | 1,452,053             |
| Total Construction Cost (in Mio) | 702,389              | 504,128           | 867,312               | 1,613,393             |
| Total Land + Construction (in Mio) | 1,384,162            | 917,730           | 1,721,194             | 3,019,606             |
| Semigross (sqm)  | 29,852                  | 21,425            | 36,861                | 68,569                |
| Price in sqm (in Mio) | 46.37                 | 42.83             | 46.69                 | 44.04                 |

F. IRR

Although NPV may be theoretically preferred, in some cases IRR’s annualized, yield-like presentation format may make it more desirable. Consequently, researchers have attempted to combine the advantages of NPV and IRR to produce annualized or yield-like figures which also consider wealth maximization (Agnes Cheng et al., 1994). Therefore, in this study, it will also use IRR as the benchmark.

G. Payback Period

The first primary capital investment criterion to be discussed is the payback period (N) in years. The payback period may or may not be an integer. If it is not an integer, the payback period must be determined by approximation methods. In simpler terms, the payback period can also be defined as the number of years of cash inflow required to earn back the initial investment (Pegels, 1991).

H. Terminal Value

According to Damodaran (2022), a terminal value is the value of the asset being valued at the end of the investment time horizon. Stephen Sykes, (1983) stated the value is not only dependent upon the projected rental level but also on the forecast capitalization rate. Therefore, the terminal value will be used as the component to evaluate as part of the research.
The tools that will be used to calculate the risk to support the investment decision, are as follows:

a) Discounted Rate
As a result of the two options, the discount rate is also different for every option. Calculating discount rate based on risk-free, risk premium, Beta, and the amount of investment, which is the buy and build has different amounts of investment.

b) NPV (Net Present Value)
Calculate NPV of each option, the buy and build option.

c) IRR (Internal Rate of Return)
IRR is used for analyzing the potential return of a new project that a company is considering undertaking. Calculate IRR of both options.

d) Payback Period
One of the key points to consider in the decision of the investment is the payback period. The shorter the payback period, the better the investment return.

In addition, the interview will be conducted to generate valid information from the property expert. The question is designed to obtain the opinion on the evaluation of the property investment. Respondents of this research were the expert property consultant from Cushman & Wakefield Indonesia. The questions were how much expected IRR to generate a safe capital return in the future? What are the impacted items to influence the occupiers in order to look for office space? The respondents’ answers were summarized and analysed.

IV. ANALYSIS

After collecting the data, the research may proceed by calculating the discount rate, followed by examining the NPV, IRR, and payback period for each option in which subtraction from the cash in and the cash out. Next, analyze the result of each option by comparing to conduct the result analysis to discover the cost and benefit of each option.

V. FINDINGS AND ARGUMENT

The discount rate counted as the benchmark in the feasibility analysis. The calculation itself will be divided into two ways based on every option, for the reason of the difference of the investment amount.

TABLE III: DISCOUNT RATE CALCULATION

| Description | Calculation | Result |
|-------------|-------------|--------|
| Re = re + (β × rp) | 7.10% |
| Rd = loan rate × (1-tax rate) | 8% |
| WACC (for Buy) = E/V × Re + D/V × Rd | 7.38% |
| WACC (for Build) = E/V × Re + D/V × Rd | 7.75% |

Every option has three scenarios to mitigate the risk. The scenario will be described as the favorable scenario, the expected scenario, and the unsatisfactory scenario. The analysis will compare those three scenarios to both options. The positive score of those three scenarios will be the most beneficial to the investment decision.

VI. CONCLUSION

According to the comparison table, the feasibility of both options is the buy option. It is for this reason that the buy option has a positive value in every scenario, as the risk mitigation of the investment. In addition, the IRR of the buy option is higher than the build option and the payback period is also faster than the buy option. In other words, the buy option will generate profit faster than the build option.

Based on the observation and research, the key point of property investment is location and accessibility. The buy option has more advantages to accessing public transportation within walking distance compared to the build option. In which to attract more tenants to rent the particular property.

According to the building condition, the buy option is the building which has been completed in 2019. At the moment, the building still has no tenants and is in good condition. Therefore, the transition will be easier and no further specific of recondition the building.

However, the risk should be mitigated, the property investment has several risk profile as follow:

TABLE IV: RISK ANALYSIS

| Risk                  | Impact        | Likelihood | Risk Module |
|-----------------------|---------------|------------|-------------|
| Failure to pay the loan | Significant   |Occasional  | High        |
| Asset Damage          | Significant   |Occasional  | High        |
| Business Interruption | Catastrophic  |Remote      | High        |

Therefore to mitigate those risks, the anticipation would be like the consistency of management to maintain the asset and also important that the property has insurance to cover the unwanted situation.

Despite the result, further research on the particular subject should be considered on an account of several limitations of this study. The research only observes the investment in commercial offices in CBD which records data from one company that considers as the property consultant is qualified to be taken as a subject. Further, observation and analysis may not have been sufficient to represent the whole industry. As a consequence, further research should be conducted with different cases to bring a new perspective in understanding to the whole industry.

Based on the current equity, the option which has a positive value of NPV, IRR and the fastest payback period is the buy option. Considering the property investment has the goal of long-term investment, all IRR of both options are above the discount rate. Therefore, the returns are on good terms for both options.
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J. Novitasari is a student in Master of Business Administration, School Business and Management, Bandung Institute of Technology. She has completed her bachelor degree in Architecture & Planning in University Applied Science of Potsdam, Germany. She has exposure on Real Estate Industry for 8 (eight) years. She is interested in research area that related to investment, property valuation and business strategy.

R. A. Rahadi has direct experience working for 18 (eighteen) years in real estate, property, architecture, design, investment management, financial consulting, and research. Holds a bachelor degree in Architecture Engineering from Bandung Institute of Technology, hold two master degrees in Management from Swiss German University, Indonesia and in Business Administration from Fachhochschule Konstanz-Hochschule für Technik, Wirtschaft und Gestaltung, Germany, holds a Doctorate degree in Management Science from School of Business and Management, Bandung Institute of Technology. Holds Qualified Wealth Planner (QWP ®) certification from IAFP Global, International NLP Basic Practitioner Certificate from National Federation of Neuro-Linguistic Programming (NFNLP), and Registered Financial Associate (RFA ®) Certificate from International Association of Registered Financial Consultants.