

## Analysis of Alternative Investment to Utilize The Vacant Land of CV XXX

**Karina Ardianti, Yunieta Anny Nainggolan**  
Master of Business Administration  
Institute Technology Bandung  
Bandung, Indonesia  
Karina.ardianti@sbm-itb.ac.id, yunieta@sbm-itb.ac.id

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### Abstract

The research described in this paper was conducted to help CV XXX choosing the best expansion alternative for its current business. CV XXX is a distribution company based in Cimahi, with area of distribution covering Cimahi and Bandung Barat Districts. To compete better in current market situation, CV XXX intended to expand its business while at the same time utilize CV XXX owner's unused land there. CV XXX then needed to consider the following two options for the expansion: (1) to open another distribution company or (2) to build a futsal arena for rent; by calculating those options' valuation using DCF analysis (option that provides a higher value to CV XXX will be chosen).

The result then showed that the option to open another distribution company is more favorable since it produces higher expected value than the futsal arena option. Distribution company option value amounted to Rp 9,093,296,121, while on the other hand futsal arena option produces only a value amounted to Rp 907,923,134.

*Keywords: Bandung District; Distribution Company; Valuation; Investment; Expansion*

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### Introduction

As one of the most anticipated developing countries in Asia, Indonesia offers a promising growth and further developments in its economic condition, shown by a growing GDP trend. In line with Indonesian GDP's growth, GDP annual growth in Bandung District is also showing a positive trend, with a support of many industry sectors that were dominated by factories, wholesaler-retailers, and agricultures. CV XXX as one of distribution company in Bandung, also considers this positive growing trend as a perfect timing to expand its business.

In its daily business, CV XXX faces a growing and tighter competition between distributor and other outlets. In addition, numerous growth of online marketplaces also brings another threat to this industry. Considering those situations, business expansion becomes a crucial thing for CV XXX to maintain its existence.

Some time ago, CV XXX's owner brought a new 1,800 m<sup>2</sup> landsite which located in Kutawaringin Area, Bandung and until now it has not been utilized. Thus, there was an opportunity for CV XXX to use that unutilized area. Taking into account the location, surrounding market and accesibility to that landsite, CV XXX then considered several options: (1) to open another distribution company which will be owned by the same team as current CV XXX's owners (2) to build a sport arena for rent (3) to open a food court or (4) to utilize the area as a supporting / transit warehouse. The owner chose two options to create another consumer goods distribution company which cover Bandung District area; or build a sport arena; since those two options offered a higher ROI value, compared with other options.

### Research Question

By examining the external and internal environment of CV XXX, which one would be the best investment option using valuation method?

## **Business Issue Exploration**

To understand further whether the decision of CV XXX's owners to expand its business is needed or not, a thorough internal and external analysis should be conducted.

### *Conceptual Framework*

To help CV XXX's owners understand their business situation better and later choose the best option to use the described landsite, some researchs and observations were done. Started from assessing the current condition by examine the external environment and internal environment, analyzing the SWOT of CV XXX, searching firm's problem, assessing available options, understanding business model of those options, and conducting valuation analysis of those options. Thus we can jump to conclusion which one is the most valuable option is.

### *2.2. External Analysis*

#### **A. General Environment Analysis**

In this paper, PESTEL model would be used to conduct general environment analysis. PESTEL framework can help identifying how future trends in Politics (highlights the role of governments); Economic (refers to macro-economic factors); Social (includes changing cultures and demographics); Technological (influences innovations); Environmental (focuses 'green' issues); and Legal (embraces legislative constraints or changes) might impinge on organizations.

#### **B. Industry Analysis**

Porter's Five Forces framework is particularly useful in understanding the attractiveness of particular industries or sectors and potential threats from outside the present set of competitors. Originally developed as a way of assessing the attractiveness (profit potential) of different industries, this framework can provide a useful starting point for strategic analysis even where profit criteria may not apply. The five forces are: the threat of entry into an industry; the threat of substitutes to the industry's products or services; the power of buyers, the power of suppliers, and the extent of rivalry between competitors in the industry.

### *2.3. Internal Analysis*

Internal analysis is conducted based on CV XXX's organization structure, resources, capabilities, core competencies, competitive advantages and risks analysis.

### *2.4. SWOT and TOWS Analysis*

SWOT analysis is used to identify company's strengths and weaknesses and its environmental threats and opportunities. The key objective of SWOT analysis is to determine how to position the firm so it can take advantage of opportunities while simultaneously avoiding or minimizing environmental threats. From the SWOT analysis; author can make TOWS analysis, that lead to root cause of this research which is the need of CV XXX to expand its business in order to compete with the current business situation and make sure CV XXX's business sustainability.

The output of these paper will then showed the best business expansion option, based on the overall value given to CV XXX. Only one expansion option will be chosen due to equity and land size limitation.

## **Methodology**

As discussed before, CV XXX needed to choose an option that give highest value from two available options, which are: (1) open another distribution company (2) build a futsal arena.

In order to choose the most valuable option between those two, a valuation using discounted cash flow theory is conducted. Valuation method is chosen instead of capital budgeting method since valuation method considers the investment's sustainability, even after the time period used on financial analysis is over. To do valuation, free cash flow, discount rate, terminal value and terminal growth should be estimated.



## A. Valuation

According to Gitman (2015:291), valuation is the process that links risk and return to determine the worth of an asset. It is relatively simple process that can be applied to expected streams of benefits from bonds, stocks, income properties, oil wells, and so on. To determine an asset's worth at a given point of time, the time-value-of-money techniques (such as discounted cash flow techniques) can be used.

## B. Discounted cash flow

Discounted Cash Flow is a tool relates the value of an asset to the present value (PV) of expected future cash flows on the assets, using discount rate. (Damodaran, A., 2012)

## C. Discount rate (WACC)

WACC,  $r_a$ , is the expected average future cost of capital over the long run; found by weighting the cost of each specific type of capital by its proportion in the firm's capital structure.

## D. Terminal Value

One of approach in valuation is going concern approach, assuming that the firm continuously delivers cash flows in perpetuity. Since cash flow can not be estimated forever, closure in discounted cash flows valuation is generally imposed by stopping the estimation of cash flows sometime in the future and then computing a terminal value that reflects the value of the firm at that point.

In this paper, the cash flow beyond the terminal year is assumed to grow at a constant rate forever.

Since the company is purely domestic company, the growth rate in the domestic economy will be the limiting value, thus GDP growth can be considered as the stable growth rate (5%).

## Data Processing and Modelling

Below are some assumptions that will be used to help estimate the free cash flow. Three cash flow scenarios were analyzed in this paper to help CV XXX determined its best option:

Table 1. Variable of Distribution Company Valuation

| Variabel    | Increase in yearly Sales Price | Increase in yearly Sales Quantity | Increase in Operational Expense | Beta |
|-------------|--------------------------------|-----------------------------------|---------------------------------|------|
| Optimistic  | 10%                            | 35%                               | 15%                             | 1.25 |
| Most likely | 5%                             | 30%                               | 20%                             | 1.5  |
| Pesimistic  | 0%                             | 25%                               | 25%                             | 1.75 |

The variables on most likely scenario were taken from CV XXX's historical data. Eventhough, area coverage are different between Cimahi & Bandung Barat District and Bandung District, but author believes that the sales growth will not different significantly, supported by increment of GDP and size of population in new area. Assumptions in optimistic and pessimistic scenarios are based on researches and interviews conducted to CV XXX's owners. Sales Price and Sales Quantity will be used to calculate sales estimation and Beta will be used to calculate WACC.

Table 2. Variable of Futsal Arena Valuation

| Variabel    | Increase in yearly Sales Price | Additional yearly Occupancy rate | Increase in Operational Expense |
|-------------|--------------------------------|----------------------------------|---------------------------------|
| Optimistic  | 15%                            | 1%                               | 2%                              |
| Most likely | 10%                            | 0%                               | 7%                              |
| Pesimistic  | 5%                             | -1%                              | 12%                             |

All of those assumptions in Table 2 are based on observations and interviews. Sales Price and Occupancy rate will be used to calculate sales estimation.

To make valuation using discounted cash flow, discount rate must be calculated first, as shown in tables below.

Table 3. Cost of capital calculation for distribution company option in most likely scenario

| Parameter           | Amount                            | Description         | Reference   |
|---------------------|-----------------------------------|---------------------|---|
| Risk Free rate      | 6.6%                              | ORI Rate            | <a href="http://www.kemenkeu.go.id/ORI#10">http://www.kemenkeu.go.id/ORI#10</a> hal ORI   |
| Risk Premium        | 8.82%                             | Equity Risk Premium | Damodaran, Indonesia Equity Risk Premium  |
| Coefficient         | 1.50                              | Beta                | WICO's stock from <a href="http://www.reuters.com">www.reuters.com</a>  |
| Re (cost of equity) | = risk free + (beta*risk premium) |                     |   |
|                     | 19.83%                            |                     |   |
|                     | = rate * (1-tax shield)           |                     |   |
| Rd (cost of debt)   |                                   |                     | <a href="http://www.bi.go.id/id/perbankan/suku-bunga-dasar/Default.aspx">http://www.bi.go.id/id/perbankan/suku-bunga-dasar/Default.aspx</a> |
| after tax           | 8.15%                             |                     | *average of 'suku bunga dasar kredit ritel' (ommiting some banks that are not applicable)   |



| Cost of Capital | Amount                                  | Weight | Cost   |
|-----------------|---|--------|--------|
| Equity          | 1,000,000,000                           | 20%    | 19.83% |
| Loan            | 3,891,333,333                           | 80%    | 8.15%  |
| Total           | 4,891,333,333                           | 100%   |        |
| <b>WACC</b>     | = E/V * Re + D/V * Rd * (1-Tc) = 10.54% |        |        |

In most likely scenario, author use beta = 1.5 which based on benchmark to a listed company (PT Wicaksana Overseas International (WICO)) plus some points since this new distribution company is riskier and has smaller area coverage. Similar reason as most likely scenario, beta used in pessimistic scenario is assumed to be 1.75. For optimistic scenario, author use beta = 1.25 which is WICO's beta with assumption that in optimistic scenario, this new distribution company is less risky. In addition, to fulfill the total investment amounted to Rp 4.8 billion, the owners of CV XXX will invest one billion as the equity amount.

On the other hand, the cost of capital calculation of futsal arena option is a bit different than distribution company option. Beta used for this most likely, optimistic and pessimistic scenarios calculation is 1.82; taken from average of beta from public listed property companies that rent spaces for sport such as PT Sentul City (BKSL), Agung Podomoro Land (APLN), Modernland Realty (MDLN), Ciputra Development (CTRA), and Intiland Development (DILD), which are similar to futsal arena's business. Meanwhile, the cost of debt and equity amount are equal to the distribution company option.

Table 4. Cost of capital calculation for futsal arena option

| Cost of Capital | Amount                                  | Weight | Cost   |
|-----------------|---|--------|--------|
| Equity          | 1,000,000,000                           | 26%    | 22.69% |
| Loan            | 2,826,900,000                           | 74%    | 8.15%  |
| Total           | 3,826,900,000                           | 100%   |        |
| <b>WACC</b>     | = E/V * Re + D/V * Rd * (1-Tc) = 11.95% |        |        |

From those scenarios and discount rate calculation, a projection cash flow in most likely scenario can be calculated as shown in Table 5 below.

Table 5. Projection cash flow of Distribution Company Option in Most Likely Scenario

|                             | 2017             | 2018           | 2019           | 2020           | 2021           | 2022            |
|-----------------------------|------------------|----------------|----------------|----------------|----------------|-----------------|
| Quantity                    |                  | 96,398         | 124,893        | 161,811        | 209,642        | 271,612         |
| Average Price               |                  | 323,658        | 338,321        | 353,649        | 369,670        | 386,418         |
| <b>Sales</b>                |                  | 31,200,000,000 | 42,253,971,606 | 57,224,298,606 | 77,498,522,068 | 104,955,780,480 |
| Sales Return                |                  | 156,000,000    | 211,269,858    | 286,121,493    | 387,492,610    | 524,778,902     |
| <b>Net Sales</b>            |                  | 31,044,000,000 | 42,042,701,748 | 56,938,177,113 | 77,111,029,457 | 104,431,001,578 |
| COGS                        |                  | 29,172,000,000 | 39,507,463,452 | 53,504,719,197 | 72,461,118,133 | 98,133,654,749  |
| <b>Gross Profit</b>         |                  | 1,872,000,000  | 2,535,238,296  | 3,433,457,916  | 4,649,911,324  | 6,297,346,829   |
| Land rent fee               |                  | 40,000,000     | 40,000,000     | 40,000,000     | 40,000,000     | 40,000,000      |
| Operational expense         |                  | 1,425,380,000  | 1,715,617,485  | 2,064,953,454  | 2,485,421,608  | 2,991,505,961   |
| Bank guarantee fee          |                  | 17,500,000     | 22,672,972     | 29,375,068     | 38,058,291     | 49,308,263      |
| Depreciation                |                  | 256,375,000    | 275,125,000    | 293,625,000    | 293,625,000    | 318,625,000     |
| <b>EBIT</b>                 |                  | 126,495,000    | 481,822,839    | 1,005,504,395  | 1,780,306,425  | 2,897,907,605   |
| Tax, 25%                    |                  | 31,623,750     | 120,455,710    | 251,376,098    | 445,076,606    | 724,476,901     |
| <b>NAT</b>                  |                  | 94,871,250     | 361,367,129    | 754,128,296    | 1,335,229,818  | 2,173,430,703   |
| <b>Net Working Capital</b>  |                  | 191,086,375    | 238,612,176    | 337,999,503    | 360,767,808    | 635,378,107     |
| <b>CAPEX</b>                | 4,891,333,333    | 100,000,000    | 125,000,000    | 100,000,000    | 163,000,000    | -               |
| <b>Free Cash Flow</b>       | (-4,891,333,333) | 66,409,874     | 272,879,952    | 609,753,793    | 1,117,587,011  | 1,856,677,596   |
| <b>Terminal Value</b>       |                  |                |                |                |                | 14,735,536,474  |
| <b>TOTAL FREE CASH FLOW</b> | (-4,891,333,333) | 66,409,874     | 272,879,952    | 609,753,793    | 1,117,587,011  | 16,592,214,070  |

The average sales price and sales quantity number in 2018 were taken from projection given by XYZ Principal (brand owner). Then the projection number in year 2019 until 2022 is based on assumption in Table 1. The calculation of optimistic and pessimistic scenarios also uses the same approach.

On the other hand, the projection cash flow of futsal arena option in most likely scenario are describe in Table 6.

Table 6. Projection cash flow of Futsal Arena Option in Most Likely Scenario

|                             | 2017                   | 2018               | 2019                 | 2020                 | 2021                 | 2022                 |
|-----------------------------|------------------------|--------------------|----------------------|----------------------|----------------------|----------------------|
| <i>weekdays</i>             |                        |                    |                      |                      |                      |                      |
| morning                     |                        | 25,920,000         | 28,512,000           | 31,363,200           | 34,499,520           | 37,949,472           |
| afternoon                   |                        | 192,000,000        | 211,200,000          | 232,320,000          | 255,552,000          | 281,107,200          |
| evening                     |                        | 345,600,000        | 380,160,000          | 418,176,000          | 459,993,600          | 505,992,960          |
| <i>weekend</i>              |                        |                    |                      |                      |                      |                      |
| morning                     |                        | 103,680,000        | 114,048,000          | 125,452,800          | 137,998,080          | 151,797,888          |
| afternoon                   |                        | 92,160,000         | 101,376,000          | 111,513,600          | 122,664,960          | 134,931,456          |
| evening                     |                        | 161,280,000        | 177,408,000          | 195,148,800          | 214,663,680          | 236,130,048          |
| <b>Total Sales</b>          |                        | <b>920,640,000</b> | <b>1,012,704,000</b> | <b>1,113,974,400</b> | <b>1,225,371,840</b> | <b>1,347,909,024</b> |
| Land rent fee               |                        | 40,000,000         | 40,000,000           | 40,000,000           | 40,000,000           | 40,000,000           |
| Operational expense         |                        | 77,300,000         | 82,711,000           | 88,500,770           | 94,695,824           | 101,324,532          |
| Depreciation                |                        | 209,937,500        | 209,937,500          | 209,937,500          | 209,937,500          | 209,937,500          |
| <b>EBIT</b>                 |                        | <b>593,402,500</b> | <b>680,055,500</b>   | <b>775,536,130</b>   | <b>880,738,516</b>   | <b>996,646,992</b>   |
| Tax, 25%                    |                        | 148,350,625        | 170,013,875          | 193,884,033          | 220,184,629          | 249,161,748          |
| <b>NAT</b>                  |                        | <b>445,051,875</b> | <b>510,041,625</b>   | <b>581,652,097</b>   | <b>660,553,887</b>   | <b>747,485,244</b>   |
| <b>Net Working Capital</b>  |                        | <b>298,947,875</b> | <b>240,737,525</b>   | <b>230,419,599</b>   | <b>217,214,278</b>   | <b>231,299,127</b>   |
| <b>CAPEX</b>                | <b>3,826,900,000</b>   | -                  | -                    | -                    | <b>12,600,000</b>    | -                    |
| <b>Free Cash Flow</b>       | <b>(3,826,900,000)</b> | <b>356,041,500</b> | <b>479,241,600</b>   | <b>561,169,998</b>   | <b>640,677,109</b>   | <b>726,123,617</b>   |
| <b>Terminal Value</b>       |                        |                    |                      |                      |                      | <b>4,739,215,338</b> |
| <b>TOTAL FREE CASH FLOW</b> | <b>(3,826,900,000)</b> | <b>356,041,500</b> | <b>479,241,600</b>   | <b>561,169,998</b>   | <b>640,677,109</b>   | <b>5,465,338,956</b> |

In futsal arena option, revenue is calculated from multiplying base price by occupancy rate (gathered from observations and interviews with some futsal arena's owner around Kutawaringin). Then the projection number in year 2019 until 2022 is based on assumption in Table 2. The calculation of optimistic and pessimistic scenario also uses the same approach.

Based on that valuation calculation, value of each scenario can be gathered. To get more insight, the values from each scenario are multiplied with probability expected percentage to get expected value of each option, as shown in table 7 and 8.

Table 7. New distribution company expected value

| Description  | Value           | Probability expected | Expected Value       |
|--------------|-----------------|----------------------|----------------------|
| Optimistic   | 20,662,607,584  | 30%                  | 6,198,782,275        |
| Most likely  | 6,647,610,121   | 50%                  | 3,323,805,060        |
| Pesimistic   | (2,146,456,073) | 20%                  | (429,291,214)        |
| <b>Total</b> |                 |                      | <b>9,093,296,121</b> |

Table 8. Futsal arena expected value

| Description  | Value         | Probability expected | Expected Value     |
|--------------|---------------|----------------------|--------------------|
| Optimistic   | 1,915,981,945 | 30%                  | 574,794,584        |
| Most likely  | 790,111,406   | 50%                  | 395,055,703        |
| Pesimistic   | 309,635,769   | 20%                  | 61,927,153         |
| <b>Total</b> |               |                      | <b>907,923,134</b> |

Probability expected percentage based on CV XXX's last few years condition, mostly similar to most likely scenario. Based on expected value comparison in Table 7 and 8, distribution company project is more favorable than futsal arena project since distribution company project give higher expected value.

## Conclusion

After considering all internal and external analysis above, it is clear that CV XXX need to expand its business to keep growing and establish a sustainable business. From the two most possible options for the expansion, a three scenarios valuation analysis and possible risk adjustment provide an output that the first option is the best option.

This option to open a new distribution company offers higher expected value (Rp 9,093,296,121) compared with the option to build and rent a sport arena (Rp 907,923,134).

## Suggestion

Based on all description above, CV XXX is suggested to utilize the unused area by opening a new distribution company, while at the same time keep an eye to possible economic developments and conditions that may provide another insights in the future. In addition to that, Sales Price and Sales Quantity are also a very important variables to increase CV XXX's value. Thus, since CV XXX does not have any control over the product's sales price, it becomes really important for the company to focus on the Sales Quantity growth over time. Therefore, CV XXX should conduct some business initiatives to support the Sales Quantity growth which in the end will make sure CV XXX's business sustainability.

## References

Bank Indonesia: [www.bi.go.id](http://www.bi.go.id)

Bcgperspective.com (2013) 'Indonesia Rising Middle Class and Affluent Consumers'  
[https://www.bcgperspectives.com/content/articles/center\\_consumer\\_customer\\_insight\\_consumer\\_products\\_indonesias\\_rising\\_middle\\_class\\_affluent\\_consumers/](https://www.bcgperspectives.com/content/articles/center_consumer_customer_insight_consumer_products_indonesias_rising_middle_class_affluent_consumers/) (accessed 24 January 2017)

BPS Kabupaten Bandung (n.d). Retrieved February 2017, from BPS Kabupaten Bandung:

<https://bandungkab.bps.go.id/>

BPS Kabupaten Bandung Barat (n.d). Retrieved February 2017, from BPS Kabupaten Bandung Barat:

<https://bandungbaratkab.bps.go.id/>

BPS Kota Cimahi (n.d.). Retrieved February 2017, from BPS Kota Cimahi:

<https://cimahikota.bps.go.id/>

Damodaran, A (2012), *Investment Valuation*, 3<sup>rd</sup> ed., New Jersey: John Wiley & Sons, inc..

Damodaran, A. (2017). Retrieved 2 2017 from:

[http://pages.stern.nyu.edu/~adamodar/New\\_Home\\_Page/datafile/ctryprem.html](http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html)

Gitman L. J. and Zutter C. J. (2015), *Principles of Managerial Finance*, England: Pearson Education Limited

Indonesia GDP Annual Growth Rate. (2016, November 7). Retrieved 2 2017, from Bloomberg:

<https://www.bloomberg.com/news/articles/2016-11-07/indonesian-gdp-expands-5-in-third-quarter-matching-forecasts>

Ireland R. D., et al., (2008) *Understanding Business Strategy*, 2<sup>nd</sup> ed., USA: Cengage Learning

Johnson, G, et al., (2008) *Exploring Corporate Strategy*, 8<sup>th</sup> ed., Italy: Pearson Education Limited

Kementerian Keuangan, Obligasi Negara Ritel viewed 17 February 2017 at <http://www.kemenkeu.go.id/ORI>

Reuters. (n.d). Retrieved February 2017, from Reuters.com

Ross, S.A., et al. (2010) *Corporate Finance*, 9<sup>th</sup> ed., Singapore: McGraw-Hill

*Suku Bunga Dasar Kredit*. (2016, 11). Retrieved February 2017, from Bank Indonesia:

<http://www.bi.go.id/id/perbankan/suku-bunga-dasar/Default.aspx>

*SBI rate*. (2017, February 22). Retrieved February 2017, from Bank Indonesia:

[http://www.bi.go.id/id/moneter/operasi/lelang-sbi/Pages/SBISBIS\\_16122016.aspx](http://www.bi.go.id/id/moneter/operasi/lelang-sbi/Pages/SBISBIS_16122016.aspx)

Worldbank.com, Indonesia Economic Quarterly, Viewed 30 March 2017, at

<http://www.worldbank.org/en/country/indonesia/publication/indonesia-economic-quarterly-january-2017>

