

THE APPLICATION OF DISCOUNTED CASH FLOW VALUATION METHOD TOWARDS ADAPTIVE FASHION COMPANY IN INDONESIA

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Keyword

adaptive fashion, wheelchair users, disability, valuation, discounted cash flow

Abstract

People with disabilities (PWDs) often experience difficulties in carrying goods, moreover there are issues related to inclusiveness in the field of fashion which may limit their space for expression in this field. For this reason, a startup company called Beyond is here to address this issue by providing fashionable adaptive bags for wheelchair users in Indonesia. With the booming trend for local businesses and the high rate of habitual buying of goods and accessories owned by Indonesians, Beyond has a huge opportunity in the market. However, this company does not yet know the valuation even though this is very necessary to increase capital for Beyond's business continuity. As a result of this research, the valuation of Beyond is measurable, namely IDR 510,736,887 equivalent to 1021.47% of the initial investment value.

INTRODUCTION

In Indonesia, there are 22.5 million people with disabilities (PWDs) according to Qonita (2020) and 38.3% of them are categorized as having mobility issues Bappenas (2021). Wheelchairs have a significant role as an aid in improving human mobility (WHO, 2010). However, using a wheelchair has additional drawbacks, one of which is carrying goods, particularly when wheelchair users are required to travel. "When I ever took a bus, it was really difficult to carry items" (Watini, 2017)" (Siswanto, 2017). The inconvenient aspects of using a wheelchair, such as having trouble carrying items, may interfere with the ergonomics of the wheelchair user, which ergonomics leads to the application of knowledge, theory, and principles into design that concerns human factors, in order to improve human satisfaction and holistic system functionality (Dul & Weerdmeester, 2001).

Beyond, a start-up that supports the independent life of individuals with disabilities, attempts to address this issue by providing an adaptable bag for wheelchair users. Beyond discovered another issue relating to disability and fashion when continuing reiterative testing for the first adaptive bag in the research and development phase. Because everyone dresses, it should be considered a fundamental right. This indicates that the ability to dress is a fundamental right that should be guaranteed regardless of body size, skin color, or the presence or absence of a disability (Henrique, 2021). As a result, Beyond saw this as a problem that the adaptive bag might cope with. There is a chance to integrate the solution to the issue wheelchair users have with carrying objects with the ideal of fashion inclusivity and equality as a right of persons with disabilities, particularly those who use a wheelchair.

Furthermore, according to the Kredivo E-Commerce Behaviour Report (2022), which shows that fashion and accessory products accounted for roughly 21.9% of all transactions in 2021, Beyond recognizes that there is a market in Indonesia for this solution. The market potential is expanding as local brands enter a period of revitalization, as evidenced by the numerous local

brands that have formed and grown quickly in recent years (Arviani et al., 2022). Beyond, as one of the local brands, sees a potential market in Indonesia that may be penetrated to customers by giving the value of fashion inclusivity for persons with disabilities through the provision of an adaptive bag for wheelchair users. However, facing such big opportunities, Beyond has to calculate the valuation to prepare financial support from financing activities since the company has not measured yet. This research focal point is only limited to measures the valuation of Beyond by applying discounted cash flow using the company's financial records and projections from 2023 to 2027.

METHOD

This research uses a quantitative approach that utilizes Beyond financial records during 2023 Q2 financial statements as primary data as well as secondary data from relevant resources and benchmarking from similar companies.

Conceptual Framework.

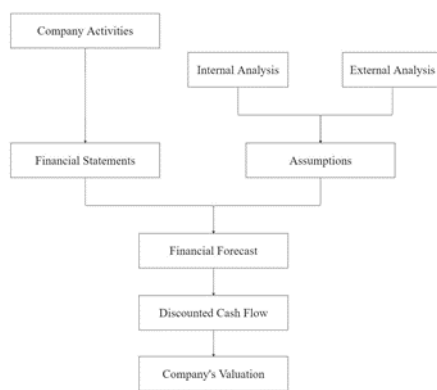


Figure 1. Conceptual Framework

Financial Statements

The goal of financial statements, according to Elliott and Elliott (2017), is to offer information about a company's financial status, operating outcomes, and cash flows that will allow existing and potential investors, lenders, and creditors to decide how to allocate resources. The three basic components of financial statements are the income statement, balance sheet, and statement of cash flows (C. H. Gibson, 2008).

External Analysis

External analysis refers to the process of assessing external company aspects that are connected to business competitive and environmental situations. A company's competitive advantage and market position can be ascertained by looking at this (Morgunova & Bolkina, 2021). The Porter's Five Forces model, which identifies market dangers and opportunities for companies, will be utilized as a tool to evaluate external influences in this research.

Internal Analysis

Internal analysis is the procedure of identifying and assessing organizational elements that underlie sustainable business success and long-term scalability of a company (Meesala, 2015). In this study, the internal firm elements were evaluated in terms of both their tangible and intangible components. SWOT analysis will be utilized as a method to conduct the internal analysis for this study in order to identify the company's strengths, weaknesses, opportunities, and threats.

Financial Forecasts

The theory of financial forecasts permits applying the common techniques described in the relevant literature on financial management, analysis, and accounting. According to processing

techniques for time and space, mathematical methods are used to construct the budgeting and percentage of revenue (Krylov, 2018).

Capital Asset Pricing Model (CAPM)

The Capital Asset Pricing Model (CAPM) determines the worth of financial assets associated with the excess risk that the rate of return is demanded by investors (Chen, 2021).

Weighted Average Cost of Capital (WACC)

The weighted average cost of capital (WACC) is one of methods to determine the discount rate (Pike & Neale, 2006). The terms of WACC relies on the company's overall costs of capital from various components of the company's capital structure that are averagely weighted (Ross et al., 2009).

Discounted Cash Flow (DCF)

The discounted cash flow (DCF) is commonly described as the calculation method for the present value of a future cash flow as it can be measured by the today's worth (Ross et al., 2009).

RESULTS

Business Situation Analysis

Business life cycle is a process that categorizes business phases over a time period that consist of five phases including launch, growth, shake-out, maturity, and decline. Beyond just entered the first phase which is launching as the company launched its first product in February 2023. Beyond also facing the criteria that faced by the company that just falls to the launch phase such as low number of sales and tends to grow at a slow rate.

External Analysis

Porter's Five Forces

Beyond is the first mover in the adaptive fashion industry in Indonesia, so there are no similar products to compete with. However, customers can still buy adaptive fashion products from overseas, but the prices are much higher. Therefore the competitive rivalry is low. The bargaining power of buyers, considered as high because buyers have a lot of bargaining power in this market because they are not aware of fashion inclusivity issues and the key features of adaptive bags. This means that they could easily buy conventional bags instead. While the bargaining power of suppliers is considered medium since there are many bag manufacturers in Indonesia, although minimum order quantities are often too high for Beyond. This means that Beyond has some bargaining power, but not as much as it would if there were fewer suppliers.

The bargaining power of suppliers is considered as medium since there are many bag manufacturers in Bandung, but the minimum order quantities are often too high for Beyond. This means that Beyond has some bargaining power, but not as much as it would if there were fewer suppliers. Unfortunately, there are many substitute products available, such as conventional bags. This means that buyers have a lot of options, and they could easily switch to a different product if they are not happy with Beyond's products. This leads to the high level of threat of substitute products. However, the threat for new entrants is medium as it is not easy for new entrants to enter the market because of the low awareness of fashion inclusivity issues. However, once the market becomes more aware, it will be easier for new entrants to compete.

Internal Analysis

SWOT Analysis.

Table 1. SWOT Analysis

Strengths	Weaknesses
- Established relationships with reliable vendors and material suppliers.	- Small management team with limited experience.

<ul style="list-style-type: none"> - Strong connections with disability organizations. - Valuable social media assets. 	<ul style="list-style-type: none"> - Low capital structure.
Opportunities	Threats
<ul style="list-style-type: none"> - Disrupt local fashion brands through online marketing. - Lead the market in Indonesia for adaptive fashion products. - Create a new market for people who care about fashion, inclusivity, and disability issues. 	<ul style="list-style-type: none"> - Educating the market about fashion inclusivity issues may take a long time. - Other companies may join the industry and create their own products to compete with Beyond. - The competition may become crowded.

Business Solution Alternatives

The solution to Beyond's problem involves examining primary and secondary data to construct projected pro forma financial statements. The cost of equity is calculated using CAPM and used to calculate the WACC. The DCF method is used to assess the valuation of Beyond, taking into account the company's financial performance, financial capabilities, and goals for the next 5 years. The analysis also prepared in several scenarios to minimize the risk of unachieved targets of sales that illustrated into pessimistic, realistic, and optimistic cases. The pessimistic case will be the lowest expected of the business operations that are having less sales compared to the realistic case by 10%. While the optimistic case showed the illustration of the company that achieved the higher sales by 10% compared to the realistic case.

Company Valuation

Initial Investment

In order to power a company's activities, capital will be required. Initial investment is referred to in the terms of capital for Beyond at the start of the firm. Beyond's initial Rp50,000,000 investment was entirely supported by owner equity. The original investment made by Beyond was transformed into cash and inventory, which served as the business's assets during its first year of operation. The initial sum of money invested by Beyond, which was then converted into cash and inventory. The initial inventory is Rp 15,827,000, and the remaining Rp 34,173,000 in cash is kept aside to pay for running costs for the ensuing several months of the working year.

Table 2. Initial Investment

Assets	Amount
Cash	Rp34,173,000
Inventory	Rp15,827,000
Total	Rp50,000,000

Interest Rate Calculation

In this valuation research, the Weighted Average Cost of Capital (WACC) is derived as the number of the interest rate. Before computing WACC, the cost of equity must be determined using the Capital Asset Pricing Model (CAPM). In order to calculate the CAPM for Beyond, the risk-free rate is obtained from government bonds with a maturity date of January 2028 and a fixed rate of return of 5.60%, which is FR094. The beta was calculated by comparing the company to PT Mitra Adiperkasa (MAPI), which distributes retail fashion items in Indonesia. MAPI has a beta of 0.28. Finally, the market return utilized to construct the CAPM is an average 5-year return from the Jakarta Stock Exchange Composite Index (JKSE) from early 2019 to early

2023. The estimated market return is 3.02%. Overall calculated cost of equity for Beyond is 4.88%.

Table 3. CAPM

Capital Asset Pricing Model	
Account	Amount
Risk Free Rate	5.60%
Beta	0.28
Market Return	3.02%
Cost of Equity	4.88%

The calculation of WACC for Beyond is fully obtained from the cost of equity since the amount of equity is only from stakeholders' capital. Thus the amount of equity of Beyond is 4.88% that is also used as the interest rate to calculate the valuation.

Table 4. Weighted Average Cost of Capital

Weighted Average Cost of Capital	
Account	Amount
Cost of Equity	4.88%
Cost of Debt	-
WACC	4.88%

Discounted Cash Flow Calculation

Using the discounted cash flow (DCF) method, and interest rate obtained from WACC which is 4.88%, the valuation of Beyond could be measured. Based on the calculation using DCF, the valuation of Beyond after 5 years of operations on Realistic case or base scenario is Rp510,736,887. The amount of valuation is 1021.47% of the company's initial investment.

DISCUSSION

Based on the valuation that was already calculated in the previous chapter, there are differences in valuation from the pessimistic, realistic, and optimistic scenario. As the base scenario, the valuation for a realistic case is Rp510,736,887 that is 1021,47% of the amount of the company's initial investment. Meanwhile, the valuation for the pessimistic case is Rp367,216,686 which is only 734.43% of the initial investment. On the other hand, the valuation for optimistic case is Rp651,255,781. the amount shows that 1302.51% of the company's initial investment. The result of valuation on three scenarios caused different amounts of worth. Compared to the realistic case, the valuation of the pessimistic case is -28.10% which is showing a lower value. While for the optimistic case that compared to the realistic case the difference is showing a higher value of 27.51%.

Table 5. Discounted Cash Flow

Discounted Cash Flow	
Scenario	Amount
Pessimistic	Rp367,216,686
Realistic	Rp510,736,887
Optimistic	Rp651,255,781

CONCLUSION

In conclusion, Beyond as the startup that focuses to assist issues related to fashion inclusivity and carrying goods for people with disabilities, especially for wheelchair users could

be prepared for the financing support from third parties such as lenders and investors as the company already measures its valuation. The valuation method used in this research is using discounted cash flow from 5 years of operating activities that refers to the primary data from the company's financial records and secondary data from benchmarking to similar companies. The data were converted into assumptions and would take part in constructing pro forma financial statements that are created into 3 scenarios based on the differentiation of the sales target. The pessimistic case will have a slightly lower amount of sales by 10%, while the pessimistic case is expected to obtain more target sales by 10%.

The result of calculation using the DCF method generates different valuation for these 3 scenarios. The amount of valuation for the pessimistic case is Rp367,216,686. The higher worth of the company is calculated from a realistic case of Rp 510,736,887. While the optimistic case show the highest amount of valuation for Rp651,255,781. The assumptions of the scenario alternatives by lower sales target for 10% will generate -28.10% lower valuation than the realistic scenario. This is also applied on the optimistic case which has a 27.10% higher valuation compared to the realistic case based on the assumptions of higher sales by 10%. Based on the scenario alternatives, Beyond should achieve the higher sales target that gives additional worth to the company. The increase in valuation also can be captured from higher initial investment.

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