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Financial feasibility of business towards application-based business: a case study of Drykeun

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Abstract - Drykeun, an e-commerce startup established in 2022, focuses on the laundry industry in Indonesia. Drykeun aims to become the country's leading laundry service provider by utilizing technology, innovation, and exceptional customer service. Drykeun partners with existing laundries to ensure standardized quality control and deliver top-notch services to households and businesses across the nation. Its mission is to provide reliable, affordable, and high-quality services, making laundry day hassle-free for all people. However, facing low sales in the B2C sector, Drykeun plans to pivot to the B2B target market. To determine the viability of this shift, a feasibility analysis will be conducted. This quantitative study will utilize historical company data, as well as secondary data from literature reviews, journals, and books. The research will also assess the financial feasibility of the company's strategy using measures such as the payback period, net present value, and internal rate of return. The study results indicate that Drykeun is financially feasible with a payback period of 1.6 years, an NPV of Rp. 396,378,216, and an IRR of 82%, which is higher than the Weighted Average Cost of Capital (WACC) of 5.2%.

Keywords: feasibility study, financial projection, laundry industry

1 Introduction

Based on a research published by Euromonitor International in 2021, the laundry care market in Indonesia exhibited a compound annual growth rate (CAGR) of 5.8% throughout the period from 2014 to 2019. Consequently, the market's value escalated to IDR 10.5 trillion (equivalent to around USD 735 million) in 2019. The aforementioned statement suggests that the laundry sector in Indonesia has exhibited consistent growth over time, as a larger proportion of consumers have opted for washing services owing to time limitations and the convenience they provide. According to Euromonitor International [6], it has been projected that the laundry services market in Indonesia would experience a growth rate of 10.1% in the year 2021, signifying a considerable opportunity for expansion within this industry. Nevertheless, the laundry business in Indonesia has exhibited a sluggish inclination towards embracing digital solutions, as a significant number of laundries continue to depend on conventional operational approaches. The disparity between the expectations of contemporary consumers and the services provided by conventional laundry establishments has resulted in an increasing need for digital laundry platforms that can effectively address this disparity.

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With the intention of capitalizing on this prospect, Drykeun endeavors to rectify the deficiency in the Indonesian market by establishing a digital platform that facilitates the connection between laundries and clients, hence enhancing the efficiency of the laundry process and augmenting the overall satisfaction of customers. Drykeun believes that our platform can assist address this gap in the Indonesian market. Drykeun provides a comprehensive solution that enhances the capabilities of small and medium-sized firms (SMEs) operating in the laundry industry, thereby contributing significantly to the nation's economy. Small and medium-sized enterprises (SMEs) frequently encounter difficulties pertaining to restricted resources, technological capacities, and market penetration. Nevertheless, Drykeun's digital platform presents a substantial value proposition to small and medium-sized enterprises (SMEs). This facilitates the establishment of an internet presence, efficient marketing of their services, and enhanced connectivity with a broader consumer base. The enhanced exposure and accessibility allow small and medium-sized enterprises (SMEs) the chance to compete on an equitable basis with larger, well-established entities within the industry.

Despite the potential for growth in the laundry services market in Indonesia, there exist several constraints that necessitate attention in order to effectively exploit this potential. The biggest hindrance to reaching economies of scale and improving efficiency in the Indonesian market is the fragmented character of the business, as stated in a research by McKinsey & Company [21]. One of the primary benefits of Drykeun is in its ability to facilitate the transformation of established laundry businesses into collaborative partners, hence enabling direct engagement with clients. This enables laundry businesses to broaden their clientele and enhance their financial gains by providing a service that is more convenient and efficient. Drykeun is a pioneering solution that enables conventional laundry establishments to revolutionize their operational processes and effectively contend in the era of digitalization. Laundries have the opportunity to expand their client reach and enhance their financial performance by establishing partnerships with the platform. Nevertheless, Drykeun has the potential to mitigate these constraints and stimulate growth in the Indonesian laundry market by enabling the transformation of established laundries into strategic partners, facilitating direct interactions with clients.

In order to tackle these problems, Drykeun is currently investigating the potential of transitioning its focus from a business-to-consumer (B2C) approach to a business-to-business (B2B) approach. Drykeun aims to enhance its sales and operational efficiency by focusing on the business-to-business (B2B) sector and implementing efficient scheduling techniques. The B2B sector presents a promising market opportunity for Drykeun; however, conducting a feasibility analysis is crucial to ascertain the business idea's profitability and long-term sustainability. It is imperative to underscore that Drykeun has no plans to establish a platform for end customers in the immediate future. The primary emphasis will be placed on delivering laundry services to various enterprises, including boarding houses, small hotels, and other commercial organizations. Although the money generated from end customers is well-defined, the prospective revenue derived from the business-to-business (B2B) sector remains unknown. Conducting a feasibility analysis will facilitate the assessment of the prospective expenses and revenues linked to the transition towards a business-to-business (B2B) model. Additionally, it will aid in identifying viable funding sources and devising methods to obtain the required money. Drykeun's strategic decision to transition its target market from the consumer sector to the business-to-business (B2B) sector holds significant potential for expansion and advancement within the Indonesian laundry industry. Nonetheless, it is imperative to do a comprehensive feasibility analysis in order to ascertain the financial viability and long-term sustainability of the enterprise.

2 Materials and methods

2.1 Theoretical Foundation

2.1.1 Financial Statements

As defined by Michael A. Gibson and Susan F. Haka [12], on page 79, financial statements are a collection of interconnected reports that provide a concise overview of an organization's profits, losses, equity, liabilities, and cash movements. The cash flow statement, income statement, and balance sheet are the three reports at issue.

2.1.2 Financial Feasibility

A feasibility analysis evaluates the viability and practicability of a system or project proposal. This procedure includes financial feasibility analysis as a component that assesses the sustainability and economic potential of a project. Brigham and Ehrhardt [3] define financial feasibility analysis as the process of assessing the anticipated revenue and expenses of a project in order to determine its potential profitability. Generally, this evaluation is founded upon financial projections and approximations of forthcoming performance. The three most frequently employed models for assessing the financial viability of alternatives are as follows: (1) the repayment period methods, (2) the internal rate of return methods, and (3) the net present value method.

2.1.3 Cost of Capital

The minimal rate of return required to enhance the organization's operations is referred to as the project's cost of capital. Valuation is used to rank investment opportunities. Value will increase for a business with a rate of return exceeding its cost of capital [18].

a) Cost of Equity

Ross, Westerfield, and Jaffe [24] define the cost of equity as the minimal rate of return that shareholders anticipate receiving in exchange for their stock investment in the company. In determining the cost of equity, the Capital Asset Pricing Model (CAPM) is regarded as a more objective method. Bodie, Kane, and Marcus (2014) assert that the Capital Asset Pricing Model (CAPM) is a widely utilized financial model utilized to estimate the expected return on an asset, with the return being dependent on the asset's beta-measured systematic risk.

b) Weighted Average Cost of Capital (WACC)

The weighted average cost of capital (WACC) is a financial metric that indicates the average cost of financing assets by a company's debt and equity holders. It is calculated by adding the product of the costs of each funding source and its weight in the capital structure of the company. This results in the capital cost of the company. WACC is significant for businesses because, according to Gutmann and Douma (2020), it indicates the minimum rate of return on investments that must be achieved to satisfy investors.

2.2 Methods

2.2.1 Primary Data

Kumar [19] defines primary data as information that is collected directly from its source. It is characterized by its unpublished status and originality. Put simply, primary data consists of information that has never been published or used for any other purpose prior to the current research endeavor. In addition to data from Drykeun's own historical documents, this investigation will also incorporate information from other businesses operating in comparable industries.

2.2.2 Secondary Data

Kumar [19] provides a definition of secondary data as information that has been previously gathered and employed by entities or individuals for objectives extraneous to the current body of research. Secondary data, which is presently being utilized in the present study, essentially pertains to information that was originally collected for a different purpose or task. In order to gather and validate the information provided, the researcher will employ relevant academic resources such as books, literature reviews, journals, and papers.

3 Results and discussion

3.1 Analysis of Alternatives

In this section, the researcher will expound upon potential strategies for resolving the issues faced by Drykeun. In order to address these issues, the researcher will utilize data received from Drykeun as well as other comparable companies. The obtained data will subsequently be utilized for the creation of a pro forma financial statement, encompassing estimations, an income statement, a balance sheet, and a cash flow statement. Assumptions play a crucial role as they determine the values assigned to the various components inside each financial statement. The assumptions made in this analysis will be grounded in the financial performance of Drykeun, the financial data of the company itself, and the financial data of comparable businesses.

Subsequently, the determination of Drykeun's cost of capital will be conducted by an examination of the data derived from the pro forma financial statement. The computation will be conducted with the weighted average cost of capital (WACC). The sole consideration in the analysis will be equity, given Drykeun's capital structure is exclusively composed of stock and does not incorporate any associated loan expenses. The collected data will thereafter be utilized to ascertain the viability of Drykeun as a prosperous enterprise. The assessment will employ many quantitative metrics such as payback period, net present value (NPV), and internal rate of return (IRR). Additionally, a comprehensive analysis encompassing worst-case, base-case, and best-case scenarios will be conducted in order to ensure the reliability of the findings and mitigate potential hazards.

3.2 Initial Investment

Table 1. Initial Investment

Initial Investment	
Cash	Rp40,000,000
Equipment	Rp60,000,000
Total	Rp100,000,000

3.3 Pro Forma Financial Statement

The initial stage in projecting Drykeun's cash flow involves the preparation of a pro forma financial report. The generation of cash flow is contingent upon the assumptions specified for each account on both the income statement and the balance sheet. The aforementioned assumptions are initially constructed on a monthly basis during the first year, and subsequently extended to yearly assumptions from the second to the fifth years, thereby building upon the groundwork established in the initial year. The presence of these assumptions is crucial for achieving precise pro forma financial reporting. The findings are based on primary data extracted from Drykeun's financial transaction records and supported by secondary data obtained from scholarly articles, books, and reviews. The appendices contain a comprehensive collection of financial statements.

3.4 Calculate WACC

Drykeun will be funded purely by equity, with no short- or long-term debt involved. The Capital Asset Pricing Model (CAPM) technique will be used to establish the cost of equity.

Table 2. CAPM

Capital Asset Pricing Model	
Beta	0.53
Risk-free rate	7%
Market return	3.53%
Cost of Equity	5.2%

The business will rely solely on equity funding, having a weight of 1.00. The WACC formula is:

$$WACC = (1.00 \text{ X } 5.2\%) = 5.2\% \tag{1}$$

The formulation of the Capital Asset Pricing Model (CAPM) entails the consideration of three key factors: beta, risk-free rate, and market return. These inputs collectively provide the percentage representing the cost of equity. The beta index is obtained from the finance.yahoo.com website, where Hotel Sahid Jaya International (SHID) is chosen as the benchmark firm based on its resemblance to Drykeun in the service sector. The risk-free rate percentage is derived from the government obligation FR0082 7%, which has a tenor that aligns with the projected term of 5 years. The market return is determined by calculating the Compound Annual Growth Rate (CAGR) of the daily returns of the IHSG index over the preceding 5-year timeframe. The aforementioned components will be calculated in order to determine a cost of equity value of 5.2 percent.

3.5 Feasibility Analysis

The feasibility analysis establishes the parameters for accepting investments. In order for the investment to be deemed acceptable, it is important that the repayment time does not exceed a duration of 5 years. As indicated in the table, all potential scenarios demonstrate payback durations that fall within the permissible range of less than five years. In order to achieve profitability, it is necessary for the Net Present Value (NPV) to exceed zero. The table illustrates that all viable outcomes have a positive net present value (NPV). It is imperative for the Internal Rate of Return (IRR) to exceed the cost of capital, which has been determined to be 5.2%. All three possibilities in the table fulfill this criterion. Scenario analysis involves the utilization of assumptions in order to assess and evaluate various scenarios. Business components can be determined by considering worst-case, base-case, and best-case scenarios. In order to conduct the study, it is necessary to make the assumptions of the worst-case scenario 20% more pessimistic and the assumptions of the best-case scenario 20% more optimistic. Based on the aforementioned study, it may be deduced that Drykeun's strategic initiative to transition towards the business-to-business (B2B) sector is viable.

Table 3. Feasibility Analysis

Technique	Acceptence criteria	Scenario Analysis		
		Worst-case	Base-case	Best-case
Payback period	<5 Years	1.8 year	1.6 year	1.4 year
Net Present Value	Positive NPV (NPV > 0)	327,298,065	396,378,216	452,707,427
Internal Rate of Return	Higher Than WACC (WACC > 5.2%)	69.978%	82.432%	92.222%
Investment Approval		Acceptable	Acceptable	Acceptable

4 Conclusion

Drykeun is an emerging e-commerce enterprise operating within the laundry sector, providing families and companies nationwide with premium service offerings. Drykeun aspires to establish itself as the leading laundry service provider in Indonesia through the strategic utilization of technology, innovation, and the provision of great customer service. Nevertheless, Drykeun is presently encountering a decline in sales within the business-to-consumer (B2C) domain and discerns a potential avenue for growth by directing its efforts towards the business-to-business (B2B) sector. Through the implementation of this approach, Drykeun has the capacity to optimize scheduling in order to save operating expenses and enhance overall profitability. The objective of this study is to assess the feasibility of Drykeun's ambitions to transition into the business-to-business (B2B) sector.

The study conducted estimates for the payback period, net present value (NPV), and internal rate of return (IRR) under three different scenarios, namely best, base, and worst situations, using an initial investment of Rp100,000,000. In the optimal scenario, the payback period is determined to be 1.4 years, accompanied by a net present value (NPV) of Rp452,707,427 and an internal rate of return (IRR) of 92 percent. The initial scenario resulted in a payback period of 1.6 years, a net present value (NPV) of Rp396,378,216, and an internal rate of return (IRR) of 82 percent. Finally, the most unfavorable scenario yielded a payback period of 1.8 years, a net present value (NPV) of Rp327,298,065, and an internal rate of return (IRR) of 69 percent. Significantly, it is noteworthy that all three eventualities are deemed to be acceptable. In conclusion, it can be asserted with confidence that Drykeun possesses the requisite skills to effectively implement its strategy of transitioning to the business-to-business (B2B) sector.

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