

Financial Feasibility Analysis of Self-Owned Pattern Printed Kain as Product Innovation Strategy in Fashion Business: A Case Study of Tanair

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Abstract

Generation Z in Indonesia faces a challenge in establishing a strong national identity, underscoring the importance of fostering pride and appreciation for local culture (Manurung et al., 2022). Fashion is a significant avenue for self-expression and can be crucial in cultural promotion. The burgeoning fashion market in Indonesia presents substantial opportunities for businesses aiming to leverage cultural pride. Tanair, a new fashion brand founded in Bandung in 2024, seeks to enhance Indonesian pride through its innovative use of kain (traditional fabric). To navigate the competitive fashion landscape, Tanair requires a comprehensive financial feasibility study to validate its product innovation strategy. This study encompasses a five-year financial projection across three distinct scenarios—pessimistic, baseline, and optimistic—to evaluate Tanair's business plan's financial viability. The analysis reveals positive outcomes across all scenarios, with the pessimistic case demonstrating a payback period of 3.37 years, a net present value (NPV) of Rp61,807,419, a profitability index of 2.5, and an internal rate of return (IRR) of 29%. Notably, the IRR exceeds the weighted average cost of capital (WACC) of 8.92%, indicating a favourable financial outlook for the company. This study confirms that Tanair's innovative approach is financially feasible, positioning it for success in promoting Indonesian cultural heritage through fashion.

Keywords: Financial Feasibility; Fashion Industry; Generation Z

A. INTRODUCTION

Generation Z, defined by the Pew Research Center, includes individuals born between 1997 and 2012 (Dimock, 2019). According to a report by (IDN Media, 2024), Generation Z currently represents the largest demographic group in Indonesia, accounting for 27.94% of the total population. However, a survey conducted by Populix in 2023 revealed that 65% of Indonesians believe that youth today exhibit a decline in nationalism, a sentiment echoed by many within Generation Z themselves. (Manurung et al., 2022) most Generation Z members have a low sense of national identity, emphasizing the need for effective channels to foster national pride and cultural appreciation, which are crucial for preserving Indonesian culture.

Fashion is a significant medium of self-expression, reflecting values, social class, and lifestyle. (Mandal and Kumar, 2022) note that fashion is a form of personal expression, while (Kwik and Gondoputranto, 2022) highlight its intrinsic link to identity. The Indonesian fashion market, projected to reach US\$5.73 billion by 2024, according to (Statista, 2023), is expected to grow at a compound annual growth rate (CAGR) of 4.26% from 2024 to 2029. (Pramono and Purwanegara, 2023) Indonesian Generation Z prefers local fashion brands over international ones, supported by the (Deloitte Consumer Insights Survey, 2019), which indicated a strong inclination towards local brands in the clothing and footwear categories.

To address the need for a strengthened national identity among Generation Z while capitalizing on the growing fashion industry, Tanair was established. Based in Bandung, Tanair aims to promote Indonesian cultural pride through its kain (traditional fabric) fashion products, including Obi (fashion belts) and wrap skirts. The company emphasizes student collaboration and youth involvement in Indonesia's cultural development. A common reason for startup failures is running out of cash due to poor financial management, as noted in the 2021 CB Insights report, and cash flow issues are highlighted by (McConnel, 2022) as a significant factor. Financial feasibility studies are crucial in mitigating this risk.

Staying competitive, particularly against established firms, is a major challenge. Innovation, such as Tanair's planned product enhancements, is vital for success in a competitive market. This research assesses the financial feasibility of Tanair's product innovation plan through a five-year financial projection, incorporating sales forecasts derived from both internal and external analyses. Internal analyses include TOWS and business life cycle evaluations, while external analyses involve Porter's Five Forces and PESTLE analyses to determine

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Tanair's position in the fashion industry. This study does not explore potential impacts on the broader fashion market or other countries' industries.

B. RESEARCH METHODS

Michael Porter's Five Forces framework (Porter, 1979) analyzes five critical aspects of industry competition: the threat of new entrants, the bargaining power of buyers, the bargaining power of suppliers, the threat of substitute products or services, and the rivalry among existing competitors. The PESTEL analysis evaluates the Political, Economic, Social, Technological, Environmental, and Legal elements affecting an industry, helping businesses understand their macro environment (Pan et al., 2019). By assessing these frameworks, Tanair can gauge the attractiveness of Indonesia's kain fashion industry. A resource analysis is employed to evaluate Tanair's strengths and weaknesses. This approach considers a broad range of individual, social, and organizational factors that, when combined, contribute to the company's ability to achieve above-average returns (Hitt et al., 2019). The SWOT framework, which analyzes a company's Strengths, Weaknesses, Opportunities, and Threats, is complemented by the TOWS matrix. Developed by (Wehrich, 1982), the TOWS matrix extends SWOT analysis to identify strategic options for growth.

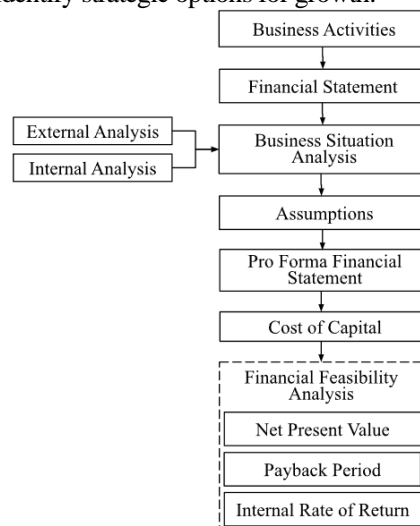


Figure 1. Research Framework

Financial statements are crucial in assessing a company's financial health. The income statement summarizes operational results over a specific period (Gitman & Zutter, 2015), while the balance sheet reflects the firm's financial position at a given time (Gitman & Zutter, 2015). The cash flow statement details cash flows from operating, investing, and financing activities (Zutter & Smart, 2022). Tanair's financial statements provide the basis for constructing financial projections. Assumptions for these projections are derived from historical financial data, industry benchmarks, and growth expectations. Scenario analysis, including optimistic, most likely, and pessimistic scenarios, helps evaluate risk by adjusting assumptions for various outcomes (Gitman & Zutter, 2015).

The cost of capital represents the return investors expect for bearing the firm's risk. For private companies, the cost of equity can be calculated using either the Capital Asset Pricing Model (CAPM) or the Constant Growth Valuation method (Zutter & Smart, 2022). Beta indicates that CAPM is preferred for its direct consideration of risk. The Weighted Average Cost of Capital (WACC) is then computed by weighting the cost of each capital type according to its proportion in the firm's capital structure (Zutter & Smart, 2022). Capital budgeting techniques, including payback period, net present value (NPV), internal rate of return (IRR), and profitability index (PI), are used to assess investment viability. The payback period measures the time required for initial investment recovery (Shefrin, 2018). NPV calculates the value of investments by discounting future cash flows, while IRR is the discount rate that results in a zero NPV (Shefrin, 2018; Gitman & Zutter, 2015). PI is determined by dividing the present value of inflows by the absolute value of initial outflows (Zutter & Smart, 2022).

This research employs a multi-method approach to data collection, including literature reviews, interviews with company members, and analysis of historical financial statements. The collected data will be processed to construct pro forma financial statements, calculate the cost of capital, assess financial feasibility, and conduct scenario analysis. Given that Tanair does not utilize debt financing, the Weighted Average Cost of Capital (WACC) calculation will focus solely on the cost of equity and the equity weight. Following the financial feasibility analysis, a risk assessment will be performed using the scenario analysis method previously described.

C. RESULTS AND DISCUSSION

The Porter Five Forces analysis indicates a moderate threat of new entrants in the Indonesian fashion market. The bargaining power of buyers is high, whereas the bargaining power of suppliers is low. The industry faces a moderate threat from substitute products or services and high competition among existing players. The PESTEL analysis reveals that Indonesia's political, economic, social, and environmental factors present opportunities for Tanair. However, technological and legal aspects are identified as potential threats. Resource analysis highlights that Tanair's strengths lie in its financial and human resources. Conversely, the company faces physical, organizational, technological, innovation, and reputational resources weaknesses.

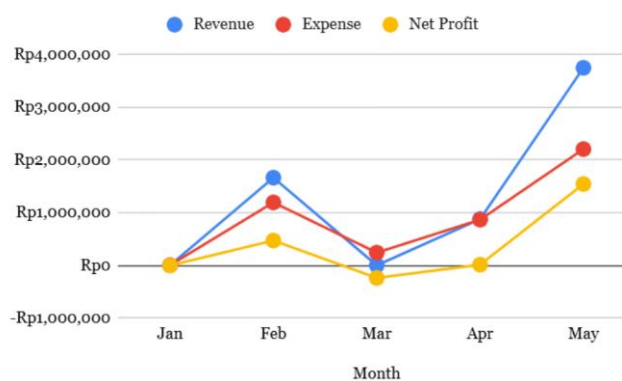


Figure 2. Historical Income Fluctuation
Source: Research data, 2024

Tanair began generating sales through pre-orders in February, although it incurred administrative and marketing expenses. Sales ceased in March due to team members' academic commitments, but marketing efforts persisted. In April, Tanair renewed its marketing through social media content creation and participated in one offline exhibition, resulting in modest profits. May marked the peak of revenue with two offline exhibitions and a new product launch, achieving the highest profit. The company is funded by owner capital and avoids fixed assets by outsourcing operations.

Following external and internal analyses, a SWOT-TOWS analysis was conducted. Tanair's strategy to leverage strengths and opportunities involves using financial resources to capture market share. To address weaknesses while seizing opportunities, Tanair plans to utilize social media platforms like Instagram and TikTok for cost-effective marketing. To enhance strengths and mitigate threats, the company aims to build a strong brand identity, making it challenging for new entrants to gain market share. Tanair will focus on strengthening relationships with suppliers to minimize threats and weaknesses.

A fishbone analysis revealed that Tanair needs profitable innovation. Weak marketing, reflected in low sales, results from a lack of product differentiation due to poor brand awareness and unclear market positioning. Operationally, limited production capacity, stemming from insufficient assets, causes material price fluctuations and production delays. Additionally, inadequate financial analysis leads to low profits and hampers asset investment. Tanair must address these issues by strengthening brand differentiation and market positioning to innovate successfully. Improved financial planning is also crucial for securing funding and enhancing profitability. Addressing these core issues will pave the way for successful product innovation.

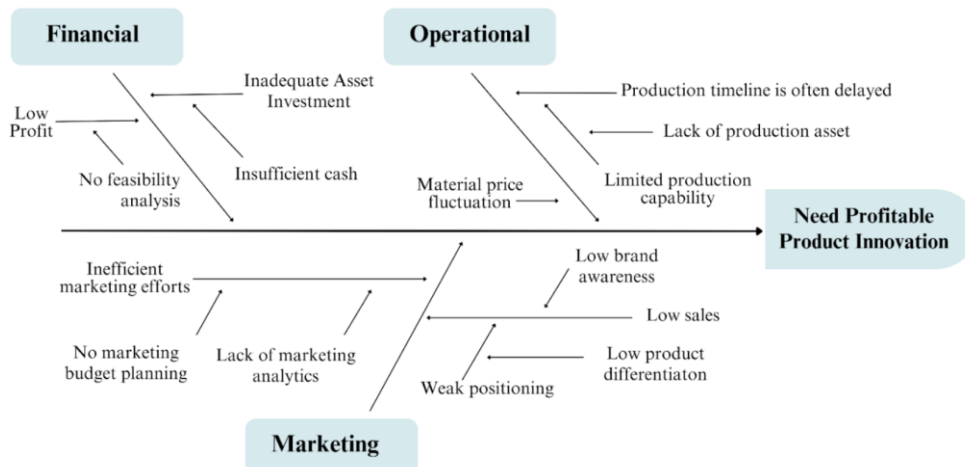


Figure 4. Fishbone Analysis of Business Issues
 Source: Research data, 2024

The researcher has proposed several alternative solutions to ensure financially feasible product innovation for Tanair. Tanair plans to introduce self-owned pattern-printed kain to address the lack of uniqueness. A vendor specializing in fabric sublimation and printing has been selected to provide a cost-effective unit price and a minimum order quantity that suits Tanair's needs. Sewing will continue to be managed by the same vendor used in previous productions. Pattern designs will be sourced from student collaborators for a set fee, granting Tanair commercialization rights. Packaging will remain consistent with previous products, and variable overhead costs will include raw material transportation. The self-owned pattern-printed kain will be priced at Rp229,000.00. Additionally, Tanair should allocate up to 25% of its marketing budget for event expenses to cover potential costs associated with future paid offline exhibitions.

Historical data indicates offline exhibitions significantly boost sales, with free events in April and May generating strong revenue. To leverage this, the company should organize free pop-up booths quarterly while budgeting for potential expenses associated with future paid events. These expenses, capped at a quarter of the marketing budget, will cover profit-sharing with organizers, discounts, booth rentals, and transportation. Scheduling these events on weekends aligns with past sales trends and enhances the likelihood of success. The researcher will also analyze optimistic, most likely, and pessimistic scenarios to evaluate Tanair's product innovation under varying market conditions. The analysis will focus on sales, growth, resources, and marketing expenses, starting with examining the Serviceable Obtainable Market (SOM). The SOM targets fashion-conscious Generation Z college students in West Java, Indonesia, estimated at 1.6 million individuals. In the optimistic scenario, the company aims to capture 0.43% of this market.

Table 1. Calculation of Serviceable Obtainable Market

Category	Persona	Amount
Total Available Market (TAM)	Indonesian Generation Z in West Java (age 15-34)	16,215,743 (BPS, 2024)
Serviceable Addressable Market (SAM)	West Java Generation Z who are College Students (age 20-34) or are Working (15-34)	8,996,247 (BPS, 2024)
Serviceable Obtainable Market (SOM)	West Java Generation Z Students Who Prioritize Fashion	1,646,313 (MarkPlus, Inc. and ZAP Clinic, 2023)

Source: Research data, 2024

The most likely scenario reflects the confirmed sales quantity, while the optimistic and pessimistic scenarios adjust this number by 35% and 48.15%, respectively, to account for potential variations in market performance. Sales projections consider minimum order quantities from fabric suppliers, internal marketing team capabilities, and financial constraints. The table below presents the differences among this research's optimistic, most likely, and pessimistic scenarios. In all scenarios, the prices for printed and non-printed wrap skirts will increase by Rp5,000 in the fourth year and Rp7,000 in the fifth year. The prices for Obi belts will increase by Rp5,000 in both the second and fourth years. Event expenses are expected to be a quarter of the marketing expenses for each corresponding month across all scenarios.

Table 2. Assumptions Difference Between Case Scenarios

Aspects	Case Scenario		
	Optimistic	Most-likely	Pessimistic
Sales Quantity	Annually, 0.43% of SOM purchases one item. 10% of buyers repeat purchases in the next year.	Three-fourths of the optimistic case scenario's measurement.	Half of the optimistic case scenario's measurement.
Sales Growth	Annually, 4.26%, according to the projected CAGR of the fashion market in Indonesia from 2024 to 2029 (Statista, 2024).	Three-fourths of the optimistic case scenario's measurement.	One-third of the CAGR.
Human Resources	Four core team members with five interns.	Four core team members and two interns in the first to fourth year. Five core team members and four interns in the fifth year.	Four core team members in the first to fourth year. Four core team members and two interns in the fifth year.
Marketing Expense	The marketing expenses increased by 25% in the third year compared to before.	Similar to the measurement of the optimistic case scenario.	Half of the optimistic case scenario's measurement.

Source: Research data, 2024

There are notable differences among the case scenarios. The most likely scenario assumes sales quantities at three-fourths of the optimistic scenario and half of the pessimistic scenario. Similarly, sales growth in the most likely scenario is projected to be three-fourths of the optimistic scenario and one-third of the pessimistic scenario. Additionally, there are variations in human resources and marketing expenses between the scenarios, with the pessimistic scenario assuming marketing expenses to be only half of those in the optimistic and most likely scenarios. These differences in assumptions account for the potential challenges a new business faces. As Tanair was established in 2024, the scenarios reflect various potential downturns, as outlined in Table 2. The researcher proceeds to project both monthly and annual financial statements. The projections indicate the highest profit in the optimistic scenario, with a steady increase over five years. In contrast, the most likely and pessimistic scenarios show an initial profit surge followed by a decline in later years due to rising marketing expenses that surpass sales growth. This underscores the importance of Tanair carefully managing marketing expenses concerning achievable sales goals to sustain profitability.

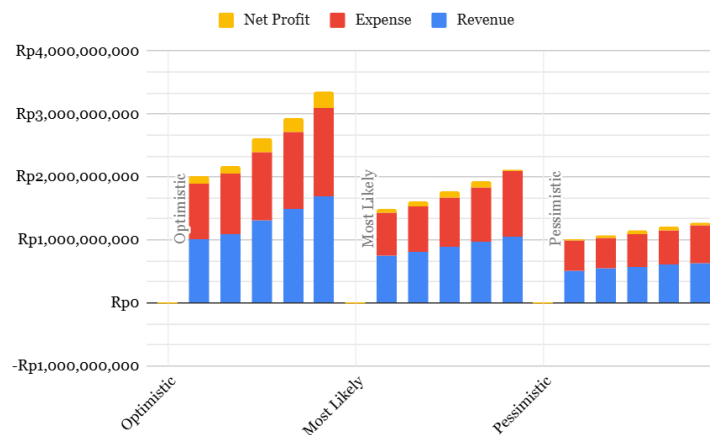


Figure 5. Pro Forma Income Fluctuation between Scenarios

Source: Research data, 2024

As illustrated in the graph above, Tanair's financial performance is significantly impacted by sales figures. The optimistic scenario, which assumes high sales volume and growth, results in a total net profit substantially higher than the other scenarios, with a 347.40% difference between the optimistic and pessimistic scenarios. This underscores the critical importance of meeting sales targets. The balance sheet and cash flow statement are derived from the income statement projections, with the cash flow primarily reflecting operational activities. The Weighted Average Cost of Capital (WACC) is calculated to be 8.92%. The beta coefficient is benchmarked from

PT MAP Aktif Adiperkasa Tbk (MAPA), with Investing.com (2024) reporting a beta of 1.09 for MAPA. The risk-free rate of return is based on the 5-year government bond rate, specifically FR0071, at 9%. The expected return on the market portfolio is derived from the Compound Annual Growth Rate (CAGR) of daily JKSE returns over the past five years, which is 2.09 per cent. All components were weighted as of June 9, 2024. Tanair's financial feasibility is then assessed using capital budgeting metrics. Projects are acceptable if they meet the following criteria: a payback period of less than five years, a positive net present value, an internal rate of return exceeding the WACC, and a profitability index greater than 1.0.

Table 3. Financial Feasibility Decision Between Case Scenarios

Capital Budgeting	PP	NPV	IRR	PI	Financial Feasibility Decision
Acceptance Criteria	< 5 years	> Rp0	>8.92%	>1.0	
Case Scenario					
Optimistic	1.18 years	Rp987,734,209	138%	16.3	Acceptable
Most-likely	2.44 years	Rp648,216,289	66%	6.5	Acceptable
Pessimistic	3.37 years	Rp61,807,419	29%	2.5	Acceptable

Source: Research data, 2024

The capital budgeting analysis indicates that the investment is most favourable under the optimistic scenario, with a payback period of 1.18 years, a high Net Present Value (NPV) exceeding 987 million rupiahs, an Internal Rate of Return (IRR) above 138%, and a Profitability Index (PI) of 16.31. The most likely and pessimistic scenarios show progressively lower returns and longer payback periods, but all scenarios yield acceptable results. Specifically, all estimated payback periods are under five years, all NPVs are positive, all IRRs exceed the Weighted Average Cost of Capital (WACC), and all PIs are greater than 1.0.

CONCLUSION

Tanair, a newly established Kain fashion business in Bandung, Indonesia, aims to foster national identity through youth-oriented apparel, offering obi sashes and wrap skirts (Asih and Wicaksana variants). Despite initial sales fluctuations, the company has experienced revenue growth driven largely by offline sales channels. Tanair proposes a new product line to enhance innovation and financial stability: self-designed, printed wrap skirts.

This research assesses the financial viability of this proposed product and other strategic improvements, including internship programs and pop-up booth events. The analysis of optimistic, most likely, and pessimistic scenarios all show positive outcomes, confirming the financial feasibility of the proposed innovations and growth strategies. While the findings provide valuable insights into the financial feasibility of Tanair, they do not extend to the broader fashion market or industry impacts. The business implications suggest that Tanair's decision-makers should accept the proposed product innovation plan and develop a detailed implementation strategy to guide project execution.

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