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Financial system transformation and growth strategy: A case study of inartgrity's sustainable expansion preparation

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ABSTRACT

INARTGRITY, an education center based in Kelapa Gading, Jakarta, Indonesia, is nearing full capacity and plans to expand by opening a second branch in the near future. This study evaluates company readiness, project feasibility, and strategic recommendations for long-term sustainability, supported by risk management, and an implementation plan. Readiness is assessed using the RBV, VRIO, and financial ratio analyses. The expansion is modelled under two alternatives: buying or renting a commercial house. The buy option requires an initial investment of IDR 5,185,000,000 with a 12,52% discount rate over a 10 years horizon, while the rent option requires IDR 985,000,000 with an 11,57% discount rate over 5 years. Discounted cash flow analysis is used to compute NPV, PBP, IRR, PI, and ANPV, complemented by sensitivity analysis and Monte Carlo simulation to identify key drivers and the probability distribution of the NPV. The buy option yields NPV IDR 3,571,624,197, IRR 21,34%, PI 1,36, PBP 7 years 10 months, and ANPV IDR 645,679,440. The rent option yields NPV IDR 1,743,809,195, IRR 44,75%, PI 2,77, PBP 3 years 2 months, and ANPV IDR 478,293,264. Although buying provides a higher ANPV, renting is recommended because it offers a much higher IRR and PI, faster payback, lower initial capital, and remains robust under sensitivity and simulation, with approximately 99% probability of a positive NPV.

Keywords: financial feasibility; financial viability; sensitivity analysis; monte carlo simulation

1. INTRODUCTION

INARTGRITY is an education center providing three services: visual art, music, and an Intelligent Gym. The center offers proprietary curricula and exam-based grading for music, targeting children aged 2–19 years whose parents value education. In 2022, the founders purchased a three-story house and expanded its capacity in 2024 by renovating the third floor. Income is generated from monthly tuition fees, complemented by events, workshops, and limited sales of learning tools.

Student numbers have risen steadily, with recent data showing 280 students and a six-month forecast of 360, above the Gading Indah house capacity of 350 students. The years without formal financial tracking, mixed personal and business accounts, and the absence of cash flow and profit figures raise concerns.

This study aims to evaluate financial readiness through basic financial statement analysis, assess project feasibility using capital budgeting tools, and analyze strategic positioning and growth options using internal and market-based frameworks. Together, these perspectives provide an integrated lens for judging whether INARTGRITY is prepared for a sustainable expansion.

According to Gitman and Zutter (2015), financial analyses begin with four key financial statements. The income statement summarizes the operating results over a given period, whereas the balance sheet presents the firm's financial position on a specific date by matching assets with liabilities and equity. Assets represent resources controlled by the firm, liabilities reflect obligations to outsiders, and equity reflects owners' residual interest. The statement of stockholders' equity, including retained earnings, explains the changes in equity over time, whereas the statement of cash flows classifies cash movements into operating, investing, and financing activities. The notes to the financial statements complement these reports by clarifying the accounting policies and unusual items.

Once these statements are available, performance can be evaluated using financial ratios (Gitman & Zutter, 2015). Liquidity ratios, such as the current and quick ratios, measure the ability to meet short-term obligations. Activity ratios, including the average collection period and total asset turnover, assess how efficiently assets are used to generate sales and cash. Debt ratios, such as the debt ratio, debt-to-equity ratio, and times interest earned, capture the degree of financial leverage and a firm's capacity to service its obligations. Profitability ratios, including gross, operating, and net profit margins, earnings per share, return on assets, and return on equity, indicate how effectively a firm converts revenue and assets into profits for its owners.

To evaluate the expansion project, this study applies capital budgeting techniques, as discussed by Ross et al. (2021). The net present value (NPV) discounts expected project cash flows at an appropriate required return and compares them with the initial investment; a positive NPV signals the creation of value. The payback period indicates the time required to recover the initial investment. The internal rate of return (IRR) is the discount rate that makes the NPV equal to zero and must exceed the required return to be acceptable. The profitability index relates the present value of future cash flows to the initial investment and helps rank projects when the capital is limited. Project cash flows are built from operating cash flows, capital expenditures, and changes in net working capital, with care taken to reflect tax, depreciation, and working-capital recovery at the end of the project.

Because projections are uncertain, project analyses also incorporate scenario, sensitivity, and simulation analyses (Ross et al., 2021). Scenario analysis compares the NPV under the worst, base, and best-case assumptions. Sensitivity analysis varies one key variable at a time to identify which assumptions have the strongest impact on NPV. Simulation analysis builds on both by assigning probability distributions to critical variables and generating many NPV outcomes, thus approximating the probability distribution of project value. These tools are naturally linked to risk and return concepts and to the estimation of the weighted average cost of capital (WACC) using CAPM-based cost of equity (Gitman & Zutter, 2015).

Finally, the strategic lens is provided by the resource-based view (Barney, 1991; Barney, 2014) and Ansoff's growth matrix (Ansoff, 1957). RBV distinguishes between firm resources, competitive advantage, and sustained competitive advantage, arguing that only resources that are valuable, rare, imperfectly imitable, and well organized (VRIO) can support long-term superior performance. This framework is used

to assess INARTGRITY's tangible and intangible resources and to identify which resources can underpin sustainable growth. Ansoff's matrix frames growth alternatives through market penetration, market development, product development, and diversification. In this study, it is used to justify focusing first on market penetration through capacity expansion in the existing geographical area before moving to broader market development in future stages. Together, these theoretical foundations guide the evaluation of financial readiness, project feasibility, and strategic fit for INARTGRITY's proposed expansion of INARTGRITY (Figure 1).

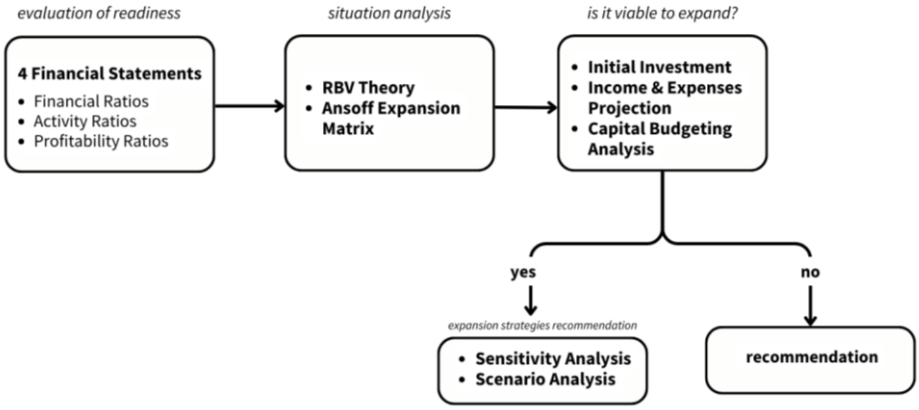

Figure 1. Conceptual Framework

2. METHOD

This section presents the analysis used to assess the feasibility of the INARTGRITY growth plan. The assessment covers internal feasibility and detailed project projections and concludes with the proposed expansion and implementation plan.

2.1. Research Design

The research design comprises four linked elements: the problem, methodology, analysis, and solution. This study adopted a sequential mixed-methods design. Qualitative coding was used to clarify the expansion plan and identify key strategic and financial issues, whereas financial ratios were employed to evaluate expansion readiness. Primary data were obtained from semi-structured interviews with the CEO and the investor, providing narrative insights into strategy, systems, and perceived constraints. Secondary data include historical financial records for 2024-2025, operational data such as attendance and student acquisition, and literature benchmarks from the education industry and financial ratio theory. Because the researcher is embedded in the organisation as a practitioner, the study can be classified as insider action research, which offers both access advantages and role-related challenges (Coghlan, 2007).

The interview analysis produces a structured description of the firm's financial condition through a list of assets, liabilities, and equity, which addresses the first objective of this study. Existing financial and operational data, complemented by a literature review, are then used to evaluate expansion feasibility, satisfying the second objective. If the project proves feasible, sensitivity and scenario analyses are conducted to test the robustness of the results. Finally, consistent with the third objective, a proposed expansion strategy for INARTGRITY was formulated.

2.2. Data Collection Method

Semi-structured interviews with investors and CEO provided in-depth qualitative data. Following Sugiyono (2010), this method starts from a set of key themes while allowing questions to develop as the conversation unfolds, enabling a richer exploration of the participants' views. Such a focused and relatively homogeneous informant group can reach data saturation with a small number of interviews (Guest et al., 2006). The interviews focused on the historical and existing financial systems, including assets and liabilities that may not yet be formally recorded. They also explore the perceived importance of an integrated financial system, current payroll and profit-sharing mechanisms, expectations for the 2026

expansion, and management's risk tolerance. The information obtained is later used to reconstruct four basic financial statements: income statement, balance sheet, statement of stockholders' equity, and statement of cash flows (Gitman & Zutter, 2015), and to gauge the managerial readiness for expansion.

Secondary data play a crucial role in assessing financial health and expansion readiness. Because the company does not yet produce formal statements as defined by Gitman and Zutter (2015), raw internal data were used to reconstruct simplified versions. Financial inputs include parents' payment records, stockholders' profit-sharing notes, and internal memos on budgeting, pricing, major purchases, salary policies, and share policies. Operational data cover student profiles, attendance and active enrollment, new customer acquisition, financial and operational records of events such as graduations and exhibitions, standard operating procedures related to finance, administration, and operations, and historical lists of teachers and staff with their payment cycles. These sources support financial ratio analysis and enable the examination of the relationship between student activity, financial stability, and operational gaps, consistent with the concept of strategic financial control that uses historical data for forecasting, budgeting, and feasibility assessment (Brigham & Houston, 2016).

2.3. Data Analysis Method

Because the initial data consisted of semi-structured interviews, which are qualitative and potentially subjective, content analysis was applied. All interviews were recorded, transcribed, and processed using coding procedures (Sekaran & Bougie, 2016). Verification strategies such as iterative coding, constant comparison, and reflexive memoing were used to enhance the reliability and validity of the qualitative findings (Morse et al., 2002). Open coding labels and categorizes the data, axial coding links categories to reveal patterns and relationships, and selective coding identifies core categories and their conceptual density, leading to a coherent narrative on financial conditions and strategic readiness.

Financial statistical tools are also employed to analyze INARTGRITY's financial health. Following Gitman and Zutter (2015), this study calculates liquidity, activity, debt, and profitability ratios. These ratios are compared with benchmarks from similar educational businesses, financial theory, and management expectations. The final interpretation integrates prior research, literature, and company-specific conditions to determine whether the financial position can support the planned expansion.

3. RESULT

3.1. Internal Analysis

The internal analysis combines the Resource Based View perspective with a financial readiness assessment. In other words, it first asks whether INARTGRITY has the right strategic resources to sustain expansion and then examines whether the financial condition can support such growth. The resource-based view frames INARTGRITY's resources as tangible and intangible assets that can generate competitive advantages if they are valuable, rare, difficult to imitate, and properly organized. This theoretical lens helps link the qualitative description of the business with later quantitative investment decisions.

INARTGRITY's tangible assets include the operating house in Kelapa Gading and its teaching facilities. The property is equipped with musical instruments for music classes, laptops, art tools and equipment for visual art, and basic equipment for the Intelligent Gym. These assets support a comfortable and engaging learning environment and help deliver the service promise, although they are relatively straightforward for competitors to imitate. Their critical strengths lie in intangible assets, which are harder to replicate. INARTGRITY has been operating since 2002 and has built a strong brand, particularly around its founder, Liza Maylina, who is known in Kelapa Gading for visual art teaching and university scholarship preparation. The institution has developed its own visual art syllabus and curriculum. Music teachers hold international teaching certifications and attend masterclasses and concerts, which strengthens their reputation and networks. Although younger, the Intelligent Gym is already recognized for early childhood preparation and homework support. Long-term relationships with students and parents have created a trusted community where referrals from alumni are a major source of new enrolments, reinforcing the value of these intangible assets.

VRIO analysis translates these resources into competitive implications for the firm. Physical resources are valuable and somewhat rare; however, because rivals can imitate them, they yield only temporary competitive advantages. Financial and technological resources are valuable, yet common and not fully systematized; therefore, they provide competitive parity rather than superiority. In contrast, brand reputation, experience and knowledge, and customer relationships are valuable, rare, hard to imitate, and already organized within the current business model. These characteristics imply that they function as sustained competitive advantages. The curriculum is valuable, rare, and inimitable, but not fully documented and standardized, which turns it into an unused competitive advantage. Overall, the analysis indicates that INARTGRITY's strongest long-term position is anchored in its intangible resources, while financial, technological, and curriculum systems still require better organization to fully support scalable growth. Table 1 summarizes INARTGRITY's strategic resources and their VRIO implications.

Table 1. VRIO Analysis of INARTGRITY's Resources

Firm Resources	Value	Rare	Inimitable	Organized	Impact
Tangible Assets					
Physical resources	yes	yes	no	yes	Temporary competitive advantage
Financial resources	yes	no	yes	no	Competitive parity
Technological resources	yes	no	yes	no	Competitive parity
Intangible Assets					
Brand reputation	yes	yes	yes	yes	Sustained competitive advantage
Curriculum	yes	yes	yes	no	Unused competitive advantage
Experience & knowledge related to the fields	yes	yes	yes	yes	Sustained competitive advantage
Customer relationships	yes	yes	yes	yes	Sustained competitive advantage

Having established internal strengths, it is also necessary to understand them in relation to competitors. Currently, there is no one-stop education center that matches INARTGRITY's mix of visual art, music, and tuition classes. Other centers in Kelapa Gading either focus on different hero products, such as ballet, or use rigid curricula, as in Global Art, which pushes some parents toward INARTGRITY for a more customized approach to art education. For the Intelligent Gym, competitors include Bimba AIUEO for early literacy and various subject-specific tutoring centers for primary and secondary students. Exit interviews show that many departing students do not move to direct competitors but switch to entirely different activities, such as sports or English courses. This pattern suggests that the main competitive threat comes from alternative uses of children's time and family budgets rather than from similar art or music schools, and reinforces the need for a compelling value proposition that keeps INARTGRITY high on parents' priority lists.

Once the strategic resource base is understood, the next question is whether the company's financial condition can sustain its expansion. Financial ratios based on statements as of October 31, 2025, provide this picture. The liquidity was very strong. The current ratio is 4.04 and the quick ratio is 4.00, both far above the education industry averages of around 1.77 and 1.33, respectively. The just-in-time inventory policy and negligible stock levels increase cash efficiency. These high ratios indicate that INARTGRITY can easily meet short-term obligations but also suggest the presence of idle cash that could be redeployed for investment. The activity ratios indicate that the existing operations are efficient. The average collection period is below one day, reflecting timely tuition payments and disciplined collection procedures, which, in turn, support stable cash flows. The total asset turnover is 0.77, slightly above the industry benchmark of approximately 0.73 (CSIMarket, 2025). This ratio is temporarily depressed by recent capital expenditure to open an additional floor in December 2024, meaning that some assets appear underutilized now but are expected to support future growth as capacity fills.

The debt ratios indicate an extremely conservative capital structure. The debt ratio is only 1.9 percent and the debt-to-equity ratio is 13.7 percent, compared with an industry benchmark of 32 percent. INARTGRITY is almost fully equity-financed and carries minimal financial risk but also receives little benefit from leverage. This conservative stance is appropriate for a family style education business, but it also means that future expansion decisions should deliberately weigh the potential benefits of moderate borrowing. profitability metrics complete the financial readiness profile. The operating profit margin is 18.7 percent and the net profit margin is 10.7 percent, both higher than the education industry benchmarks of 13.43 and 6.15 percent, respectively (Damodaran, 2025). Return on assets is 8.2 percent, slightly above the industry average of 6 percent, indicating a reasonably efficient use of assets. Return on equity is 8.3 percent, below the industry benchmark of around 15 percent, mainly because profits are distributed generously to investors, and the company does not employ leverage. However, ROE remains stable and is achieved without debt-related risk. Taken together, these ratios show a company that is liquid, conservatively financed, and consistently profitable and, therefore, financially ready to consider expansion.

With internal capabilities and financial readiness established, the discussion moves to the growth strategy. Using Ansoff's matrix (Ansoff, 1957), INARTGRITY's immediate issue is near full capacity in the existing Kelapa Gading house. Under this framework, the logical first step is market penetration in the current market by increasing capacity rather than immediately entering new markets or creating entirely new products. The interview results with the CEO and investor confirm that the preferred growth path is to open a second branch in a commercial house in Kelapa Gading, located near prominent schools. Once the second branch is stable, future options include market development in West Jakarta, South Jakarta or South Tangerang. The interviews also revealed that the long-term vision is to evolve into a franchise system in which franchisees act as passive investors while academic and operational control remains central so that quality standards can be maintained.

3.2. Investment Project Analysis

To translate this strategic intent into financial terms, two investment options are modeled: buying and renting a commercial house. Both options share the same educational concept, enrolment assumptions, and operating structure, but they differ in terms of time horizon, initial investment scale, and building ownership. This approach is consistent with prior valuation studies of educational institutions in Indonesia that apply capital budgeting tools to appraise school projects (Syauqi, 2024).

Under the buy option, INARTGRITY purchases a commercial house for IDR 4,950,000,000, complemented by capital expenditure of IDR 235,000,000 in years 1–5 and IDR 51,051,263 in year 6 for additional capacity. The planning horizon is 10 years, reflecting the long-term nature of property ownership. Revenue projections for visual art, music, and Intelligent Gym are based on detailed enrolment paths and price tiers calibrated to historical patterns at the existing branch. Visual art enrolment grows through grade progression, marketing boosts at lower levels, and a 10 percent annual growth in digital art. Music projections distinguish between piano and vocal or string instruments, with targeted marketing at the beginner level. The Intelligent Gym is modeled using sessions, with a net 10 percent growth assumption and periodic fee adjustments every three years. When aggregated, these assumptions yield total projected revenues that rise from IDR 903,579,750 in year 1, after adjusting for a 64 percent realization rate, to IDR 4,610,460,000 by year 10. The operating costs were projected in two phases. Phase one (years 1 to 5) includes one principal, two visual art teachers, two music teachers, two Intelligent Gym teachers, an admin, an accountant, a cleaner, and a central management team, along with utilities and modest marketing efforts. Expenses are inflated at 5 percent annually, while revenue grows faster; thus, the operating cost to revenue ratio falls from about 120 percent in year 1 to 44 percent in year 5.

Phase two (years 6 to 10) assumes additional teachers to serve the larger student base, which increases operating costs and temporarily raises the cost-to-revenue ratio to 47 percent in year 6. However, as additional capacity is filled, revenue grows, and the ratio gradually declines to approximately 41 percent by year 10. This pattern reflects the typical investment cycle in education services, where a new capacity step is followed by a period of utilization. Tax is calculated under the Indonesian UMKM regime at 0.5 percent of revenue according to Presidential Regulation Number 55 of 2022; therefore, tax is payable even

in year 1 when cash flow is negative. Depreciation uses the straight-line method in accordance with Minister of Finance Regulation Number 72 of 2023. Buildings are depreciated over 20 years, and equipment and fixtures are depreciated over 8 years. For the buy option, total annual depreciation is IDR 323,591,667.

Free cash flow is computed as EBITDA minus tax, with CAPEX treated as cash outflow and depreciation excluded from the tax calculation because of the UMKM formula. The initial outlay is IDR 5,185,000,000. Year 1 produces a negative free cash flow of approximately IDR -184,838,149, but from year 2 onwards, free cash flows are positive and increase steadily, reaching approximately IDR 2.83 billion in year 10. This trajectory mirrors the build-up of utilization discussed earlier.

The rent option uses the same operating and revenue assumptions but has a shorter, 5 years horizon and a much smaller initial outlay. INARTGRITY prepays five years of rent at IDR 150,000,000 per year, totalling IDR 750,000,000, and incurs the same initial CAPEX of IDR 235,000,000, resulting in an initial investment of IDR 985,000,000. Operating expenses follow the phase one structure of the buy option, since no extra capacity is added within the five-year window. Revenues under the rent scenario match those of the first five years in the buy scenario. Intelligent Gym revenue dominates in the first two years, while visual art and music grow more strongly in later years as students progress to higher-fee levels. Free cash flow is again negative in year 1 but turns positive from year 2 and reaches approximately IDR 1.68 billion in year 5.

To evaluate these cash flow streams, discount rates are estimated using the CAPM. For the 10 year buy scenario, the risk-free rate is 6.27 percent based on the Indonesia 10 years bond yield. The equity risk premium for Indonesia is 6.87 percent and the beta for education is 0.91 (Damodaran, 2025). This gives a cost of equity of 12.52 percent. Because the project is fully equity financed, the cost of debt is zero, and WACC equals 12.52 percent. For the 5 years rent scenario, the risk-free rate is 5.32 percent based on the Indonesia 5 years bond yield, while the equity risk premium and beta remain the same. The resulting cost of equity and WACC are 11.57 percent. Discounting the buy option cash flows at 12.52 percent gives a total present value of IDR 7,076,056,206 and an NPV of IDR 1,891,056,206. The discounted payback period is approximately 7 years and 10 months long. Before including any terminal value, the IRR for the buy project is 18.14 percent and the profitability index is 1.36, both above the required return. For the rent option, discounting at 11.57 percent yields a present value of IDR 2,727,809,195 and an NPV of IDR 1,742,809,195. The discounted payback period is approximately 3 years and 2 months, the IRR is 44.75 percent, and the profitability index is 2.77. These figures indicate a very attractive return relative to the smaller initial outlay (Table 2).

Table 2. Projected annual revenues by division and total (IDR)

Year	Visual Art Revenue	Music Revenue	Intelligent Gym Revenue	Total Revenue
Year 1	306.000.000	181.687.500	415.892.250	903.579.750
Year 2	622.800.000	423.000.000	662.280.000	1.708.080.000
Year 3	777.000.000	568.800.000	672.180.000	2.017.980.000
Year 4	929.400.000	729.000.000	978.300.000	2.636.700.000
Year 5	1.083.600.000	913.800.000	1.018.020.000	3.015.420.000
Year 6	1.328.400.000	1.063.200.000	1.057.740.000	3.449.340.000
Year 7	1.531.800.000	1.164.000.000	1.222.200.000	3.918.000.000
Year 8	1.680.000.000	1.219.200.000	1.285.620.000	4.184.820.000
Year 9	1.804.800.000	1.246.800.000	1.349.040.000	4.400.640.000
Year 10	1.932.600.000	1.265.400.000	1.412.460.000	4.610.460.000

Because the buy option leaves INARTGRITY with the ownership of the commercial house at the end of year 10, the analysis is refined by adding a terminal value. Assuming a conservative 1 percent annual appreciation from the initial price of IDR 4,950,000,000, based on the relatively flat Bank Indonesia commercial property index, the building is estimated to be worth IDR 5,467,879,521 in Year 10.

Discounting this value and adding it to the cash flow stream raises the adjusted NPV to IDR 3,571,624,197, increases the IRR to 21.34 percent, and lifts the PI to 1.70. The annualized NPV of the adjusted buy option becomes IDR 645,679,440, compared with IDR 478,293,264 for the rent option. From a pure wealth maximization perspective, the adjusted buy option generates more value over 10 years. However, it requires an initial investment more than five times larger than the rent option, and its payback period is more than twice as long.

The comparison of metrics shows a trade-off between long-term value and near-term financial efficiency. On the one hand, the buy option with terminal value delivers the highest NPV and ANPV and leaves INARTGRITY with a valuable property asset that can support future operations or be sold. Conversely, the rental option offers a much shorter payback period, a significantly higher IRR, and a superior profitability index, all achieved with a considerably lower initial capital requirement. Gitman notes that when NPV and IRR yield conflicting project rankings, NPV should generally be prioritized. However, in practice, a firm's current stage, funding capacity, and risk appetite also matter. For INARTGRITY, attracting an investor for a nearly five billion rupiah building purchase is much more challenging than securing a smaller amount for rental-based expansion. Moreover, a quick payback and high IRR will help build a positive track record as a new franchisor and reduce the perceived risk for early stage investors. For these reasons, the rent option is more aligned with the company's present reality, while the buy option remains a desirable long-term strategy once the franchise model has been validated.

3.3. Risk Analysis

Given the ambitious financial projections, it is essential to examine the sensitivity of the project to changes in key assumptions. Sensitivity analysis first isolates the effect of a plus or minus 20 percent change in selected variables on NPV. The tested variables included marketing costs, utilities, property lease price, CAPEX, WACC, total music students, Intelligent Gym students, visual art students, and prices for visual art and Intelligent Gym classes, as well as total salaries and bonuses.

The results show that salaries and bonuses are the most influential drivers, with a 20 percent change causing approximately a 45 percent change in NPV. The next most sensitive drivers are the total number of first-year visual art students, the price of Intelligent Gym classes, the price of visual art classes, and the total number of first-year Intelligent Gym students. CAPEX and property lease prices rank lower, indicating that while they matter, their fluctuations do not affect NPV as strongly as enrolment and pricing variables. This pattern confirms that the project's financial outcome is primarily driven by revenue-side decisions and staff cost discipline rather than by one-off investment amounts. The sensitivity of the project NPV to key cost, pricing, and enrolment variables is presented in Table 3.

Table 3. Sensitivity of Project NPV to Key Variables

Variable	ΔNPV at 80% of base (IDR)	ΔNPV at 120% of base (IDR)	% change vs base NPV (80%)	% change vs base NPV (120%)
marketing cost	23.905.233	(23.905.233)	1%	-1%
utilities cost	47.332.362	(47.332.362)	3%	-3%
property lease price	150.000.000	(150.000.000)	9%	-9%
total number of music	(157.656.477)	162.474.616	-9%	9%
CAPEX	197.000.000	(197.000.000)	11%	-11%
WACC	238.541.781	(214.305.524)	14%	-12%
music price	(238.230.653)	238.230.653	-14%	14%
total number of IG	(508.812.668)	302.199.553	-29%	17%
visual art price	(509.625.187)	509.625.187	-29%	29%
IG price	(519.248.462)	519.248.462	-30%	30%
total number of visual students	(500.787.732)	659.163.108	-29%	38%
salaries & bonus	792.458.478	(792.458.478)	45%	-45%

Monte Carlo simulation using Crystal Ball then examines how these variables interact under uncertainty. Five inputs were modelled with triangular distributions: monthly salary and benefits cost, total visual art enrolment in year one, multipliers on Intelligent Gym and visual art prices, and total Intelligent Gym enrolments in year one. After one thousand iterations, the forecast distribution of NPV shows that around 54.36 percent of simulated outcomes exceed the base case NPV of IDR 1,742,809,195 and 45.64 percent fall below it. Approximately 80.88 percent of simulations yield NPV above IDR 1,000,000,000, and only 0.12 percent produce a negative NPV. The minimum simulated NPV is around IDR -60,978,795, while the maximum is around IDR 3,808,953,859.

These results suggest that, although outcomes can vary widely, the probability of a project generating a positive and substantial NPV is very high. Simultaneously, they highlight the need for management to actively manage salaries, enrolment, and pricing if the project is to stay close to its base case.

Considering all the evidence, the recommended solution for INARTGRITY's first expansion is to adopt the rent option for the commercial house in Kelapa Gading. This choice offers an NPV of IDR 1,742,809,195, an IRR of 44.75 percent, a payback period of approximately three years and two months, and a PI of 2.77, all achieved with a moderate initial investment. These metrics position the project as highly attractive, especially for a first franchise-style venture. However, the strength of these projections depends on assumptions regarding enrolment growth, salary levels, and pricing. Therefore, management should pay particular attention to the variables identified as being the most sensitive. Salaries and bonuses need to be controlled through careful manpower planning and performance-based incentives so that service quality improves without eroding margins. Visual art enrolment should be supported by targeted marketing that leverages alumni success stories, exhibitions, and social media, as this division contributes the largest share of revenue. Pricing for Intelligent Gym and visual art classes must be managed cautiously; while scholarships or promotional discounts may be required in certain cases, systematic underpricing would quickly weaken profitability.

Intelligent Gym enrolment also deserves focused attention. The program must differentiate itself from numerous competitors by clearly communicating its role as an extension of parents' efforts to guide homework and test preparation, particularly for families with limited time. Strengthening this positioning will help sustain both student numbers and the price premium embedded in projections. The leasing model introduces additional operational risks that must be addressed. INARTGRITY and its investors should secure a firm five-year rental commitment from the landlord, ideally with annual payments but with price stability over the term. If full prepayment is required, it has already been incorporated into the financial model. Around year four, management should begin planning for the period after the initial lease ends, whether by renegotiating, moving to another nearby property, or preparing students and parents for a potential location change.

3.4. Implementation Plan and Justification

The final part of the discussion links the financial evaluation to a concrete implementation plan for the proposed system. The project is divided into pre-implementation, preparation, and operational stages, each of which supports the financial logic developed earlier. Standardizing the physical and digital workplaces around 5S principles can also support disciplined financial routines and error-free documentation at the new branch (Hirano, 1995).

Pre-implementation activities, which have already begun alongside this research, include financial feasibility analysis, meetings with potential investors, data collection on candidate buildings, and clarification of regulatory and licensing requirements so that INARTGRITY operates as a formal company rather than an informal personal business. Negotiations and legal agreements with the investor and landlord must be completed, followed by shareholder meetings to align expectations.

The preparation stage translates investments into operational capabilities. It involves recruiting new staff, launching early marketing campaigns, renovating the rented building, procuring equipment and fixtures, and training employees in INARTGRITY's curriculum and service standards. Because hiring and training are time-consuming, these tasks start early and run in parallel with the renovation. Marketing

campaigns are designed to build awareness and attract early registrations before the opening day so that the first month of operations generates meaningful revenue.

The operational stage is planned to commence in March. During the first year, the management will conduct monthly evaluations of enrolment, costs, and cash flow to detect deviations from projections and take corrective action. Marketing effectiveness will be reviewed quarterly to refine campaigns and optimize spending. At the end of each year, a financial audit and reforecasting exercise will be undertaken to reassess assumptions in light of actual performance and to adjust targets and strategies for the following year.

By integrating internal analysis, financial feasibility, risk assessment, and a structured implementation plan, this section shows that the proposed expansion via the rent option is both strategically and financially justified, while also identifying the operational levers that must be actively managed if INARTGRITY is to realize the projected benefits of the expansion.

4. CONCLUSION

From the internal analysis using the Resource Based View and VRIO frameworks, INARTGRITY is shown to possess several sustained competitive advantages in the form of brand reputation, accumulated experience and knowledge, and strong customer relationships, which together provide a solid foundation for sustainable growth and future expansion, even though gaps remain in financial systems, technology management, and curriculum organization that must be strengthened to support scalability. Despite these weaknesses, liquidity, activity, and profitability ratios are above industry benchmarks, indicating that INARTGRITY is operationally and financially ready to expand. The financial feasibility study compares two alternatives for the new branch, buying or renting a commercial house, and shows that both scenarios yield positive NPV, IRR, and acceptable payback periods. The buying option generates a higher long term value, with an adjusted NPV of IDR 3,571,624,197 and an ANPV of IDR 645,679,440, but the renting option is more attractive at this stage, with an NPV of IDR 1,742,809,195, an ANPV of IDR 478,293,264, an IRR of 44.75 percent, and a payback period of 3 years and 2 months, supported by Monte Carlo simulation indicating around 99 percent probability of positive NPV and 80.88 percent of simulations above IDR 1,000,000,000. Sensitivity and probability analyses highlight salaries and bonuses, first-year visual art and Intelligent Gym enrolment, and pricing for both classes as the most critical variables, which require strict control through budgeting discipline, targeted marketing, and prudent pricing. Therefore, this study recommends adopting the renting option, formalizing bookkeeping and legal status, and using this analytical framework to guide future market development projects.

Ethical Approval

Not applicable.

Informed Consent Statement

Not applicable.

Confidentiality Statement

Not applicable.

Authors' Contributions

AA conducted the financial modeling, data analysis, and drafted the manuscript. TF conceptualized the study, provided methodological guidance, supervised the research process, and critically revised the manuscript. Both authors have read and approved the final manuscript.

Disclosure Statement

The authors declare no conflict of interest related to this research.

Data Availability Statement

All data supporting the findings of this study are derived from publicly available sources, including academic books, peer-reviewed journal articles, and institutional and international reports. No new datasets were generated or analyzed.

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REFERENCES

Ansoff, H. I. (1957). Strategies for diversification. *Harvard Business Review*, *35*(5), 113–124.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barney, J. B. (2014). *Gaining and sustaining competitive advantage* (4th ed.). Pearson Education Limited.

Brigham, E. F., & Houston, J. F. (2016). *Fundamentals of Financial Management* (14th ed.). Cengage Learning.

Coghlan, D. (2007). Insider action research: Opportunities and challenges. *Management Research News*, *30*(5), 335–343.

CSIMarket. (2025). *Industry efficiency ratios for educational services*. https://csimarket.com/Industry/industry_Efficiency.php?ind=903

Damodaran, A. (2025). *Country risk premiums*. Stern School of Business, New York University. https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html

Gitman, L. J., & Zutter, C. J. (2015). *Principles of managerial finance* (14th ed.). Pearson Education.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, *18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hirano, H. (1995). *5 Pillars of the Visual Workplace: The Sourcebook for 5S Implementation*. Productivity Press.

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. *International Journal of Qualitative Methods*, *1*(2), 1–19. https://doi.org/10.1177/160940690200100202

Ross, S. A., Westerfield, R., & Jordan, B. D. (2021). *Fundamentals of corporate finance* (13th ed.). McGraw-Hill Education.

Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach*. John Wiley & Sons.

Sugiyono. (2010). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Alfabeta.

Syauqi, S. (2024). *Valuation of a Private Elementary School Acquisition: A Case Study of BTB School*. Institut Teknologi Bandung.