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Investment Feasibility Evaluation Analysis in Beverage Partnership Business: Case Study on Fore Coffee in Mataram City

Anggun Cantika[1], Alamsyah AB[2]
[1]Management Study Program, Faculty of Economics and Business, University of Mataram
[2]Management Study Program, Faculty of Economics and Business, University of Mataram
E-mail: angguncantika81@gmail.com[1], alamsyah@unram.ac.id[2]

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Abstract
The rapid growth of Indonesia's modern coffee industry through franchise partnerships offers significant investment opportunities but also financial risks. This study analyzes the investment feasibility of Fore Coffee's partnership business in Mataram City using financial indicators. Using a mixed-methods case study approach, the study targeted stakeholders of one Fore Coffee outlet, including managers, employees, and consumers. Data collection through interviews, observations, documentation, and questionnaires was analyzed using NPV, IRR, PP, PI, and sensitivity analysis. The results show an NPV of IDR 3,250,214,444, an IRR of 58.9% (exceeding the cost of capital by 10%), PP of 1 year and 11 months, and PI of 2.85, confirming the investment feasibility. The sensitivity analysis proves the project's resilience to a 10% decline in revenue. It is concluded that the Fore Coffee partnership investment in Mataram is highly financially feasible, serving as a reference for potential investors in decision-making.

INTRODUCTION

The food and beverage (F&B) industry has demonstrated high resilience and competitiveness following the COVID-19 pandemic, as lifestyle changes, urbanization, and the digitalization of services have driven the growth of consumption of convenience products such as ready-to-drink beverages and trendy coffee (Statista, 2024; Khairuddin, 2021). This trend is also evident in Indonesia, where the coffee-based and trendy beverage subsector has experienced significant expansion, marked by increasing demand from millennials and Gen Z and the rise of online ordering platforms that have strengthened market access for F&B businesses. In this context, the F&B franchise and partnership business model has emerged as a popular investment option because it offers a relatively standardized business format, managerial support, and brand strength, attracting individual investors seeking to enter the beverage business without building a brand from scratch (Mataram City Statistics Agency, 2023; Prihandono et al., 2021).

Fore Coffee is a local modern coffee brand that has been able to capitalize on the industry's growth opportunities through a partnership-based expansion strategy, with a network of outlets spread across various cities, including Mataram. Since its founding in 2018, Fore Coffee has expanded its network to dozens of cities in Indonesia and begun entering the international market. By the end of 2024, it operated more than two hundred outlets, with a significant portion of partnership outlets being the main driver of the company's growth (PT Fore Kopi Indonesia, 2025). In Mataram City, as the economic center of West Nusa Tenggara Province, the growing middle class, tourism activities, and the adoption of digital services create promising market

opportunities for modern franchise-based coffee shops, but at the same time require a more detailed investment feasibility study to minimize the risk of business failure (Mataram City Statistics Agency, 2023; Dewi & Pratama, 2022).

Although the prospects for beverage franchise businesses appear attractive, various studies show that not all franchise units achieve the expected financial performance, and some even struggle to break even in the first few years of operation. Kasim (2021), for example, revealed that approximately one-third of beverage franchise partners failed to reach break-even point in the first two years, largely attributed to a weak pre-investment feasibility analysis. This situation demonstrates that investment decisions in franchise businesses cannot rely solely on optimistic sales projections from the franchisor but require a comprehensive evaluation of financial, market, operational, and risk factors, including location factors, local purchasing power, and the highly contextual competitive dynamics of each city (International Coffee Organization, 2021; Prihandono et al., 2021).

In practice, investment feasibility analysis for franchise and coffee shop businesses generally uses a series of quantitative indicators such as Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PP), and Profitability Index (PI) to assess project feasibility and the extent of investment risk. Several studies on the feasibility of coffee shop and beverage businesses have shown that the use of NPV, IRR, PP, and PI can provide a more objective picture of the business's ability to generate adequate cash flow, while also providing a basis for potential investors in making rational investment decisions (International Coffee Organization, 2021; Lumbanraja & Harahap, 2023). However, most existing studies still focus on large cities in Java or the context of independent businesses. Consequently, there are few studies that specifically examine the investment feasibility of modern beverage partnership models in mid-sized cities like Mataram, where market characteristics, infrastructure, and business climate differ from those of metropolitan cities (Rama & Darmawan, 2024; Alfajri et al., 2023).

On the other hand, literature on franchise businesses confirms that the sustainability of partnership businesses is significantly influenced by risk management, the quality of the relationship between the franchisor and franchisee, and adherence to established operational standards. Prihandono et al. (2021) demonstrated that sound risk management, partner trust, and satisfaction positively contribute to franchise sustainability in the retail and F&B sectors. Therefore, investment feasibility analysis is not only relevant for potential new partners but also crucial as a strategic evaluation tool for franchisors. In the context of Fore Coffee in Mataram City, the lack of specific scientific studies on the feasibility of partnership investments creates the potential for partially informed or overly optimistic decision-making, despite the substantial initial investment to establish a single outlet, which includes construction costs, equipment, licensing rights, and initial operational costs, reaching billions of rupiah. Therefore, research is needed that systematically assesses the feasibility of Fore Coffee partnership investment in Mataram City by combining financial analysis approaches (NPV, IRR, PP, PI, and sensitivity analysis) and considering local market characteristics, so that it can provide accurate and accountable empirical evidence for potential investors and Fore Coffee management (Husnan, 2020; Sidauruk et al., 2018).

Based on the above description, this study aims to analyze the investment feasibility of the Fore Coffee partnership business in Mataram City by assessing the financial aspects using NPV, IRR, PP, and PI indicators, as well as conducting a sensitivity analysis to changes in cost and revenue assumptions. Practically, this study has high urgency because it can serve as a reference

for potential partners in assessing the risks and potential returns of investments in Fore Coffee partnerships, as well as provide strategic considerations for companies in designing more sustainable partnership schemes in mid-sized cities like Mataram (Prihandono et al., 2021). In terms of novelty, this study contributes by presenting an investment feasibility analysis of a modern beverage partnership focused on a single national brand, Fore Coffee, outside of metropolitan cities. This study integrates actual investment cost data, financial feasibility indicators, and the specific context of the local Mataram market, which has been relatively under-discussed in the F&B franchise literature in Indonesia (Alfajri et al., 2023; Lumbanraja & Harahap, 2023).

METHODS

Types and Methods of Research

This research uses a qualitative case study approach with quantitative elements that are descriptive and explanatory in nature, focusing on analyzing the investment feasibility of the Fore Coffee partnership business in Mataram City through an in-depth evaluation of the financial and operational context. The case study approach was chosen because it allows for contextual exploration of phenomena by considering internal factors such as cost structure and external factors such as local market dynamics, resulting in a holistic understanding of investment feasibility (Singarimbun & Effendi, 2008; Emzir, 2021). Furthermore, the integration of quantitative elements in the analysis of indicators such as NPV, IRR, PP, and PI enriches the findings with objective numerical data, in accordance with the principles of mixed methods that emphasize triangulation to increase the validity of research results (Sugiyono, 2021; Sudaryono, 2021).

Data Collection Instruments and Techniques

Data collection instruments included semi-structured interview guidelines, observation sheets, financial documentation forms, and a Likert-scale questionnaire to gather primary and secondary data relevant to investment feasibility variables. Data collection techniques included interviews with outlet managers and partnership partners to obtain information on operational costs and strategies, direct observation of production processes and daily transactions, documentation from Fore Coffee's financial statements and prospectus, and a questionnaire survey with employees and consumers to assess perceptions of business performance (Singarimbun & Effendi, 2008). This approach ensured data completeness by combining primary sources such as interviews and observations with secondary sources from internal company documents, which aligns with recommendations for case study research that call for a diversity of instruments to reduce bias and increase reliability (Sugiyono, 2021; Creswell & Creswell, 2023).

Data Analysis Techniques

Data analysis was conducted using a mixed quantitative approach to calculate investment feasibility indicators using the NPV, IRR, PP, PI formulas, and sensitivity analysis to cost and revenue variations. This was supported by software such as Microsoft Excel to project future cash flows. Qualitative techniques involved data reduction, presentation, and drawing conclusions from interview transcripts and observations, while data integration was achieved through triangulation to validate financial findings with the operational context (Singarimbun & Effendi, 2008). This process followed the steps of qualitative data analysis, such as theme categorization and narrative interpretation, combined with descriptive statistical tests from the questionnaire, resulting in a comprehensive, credible and retestable evaluation (Emzir, 2021; Sudaryono, 2021).

Population and Sample

The study population comprised all stakeholders related to Fore Coffee's operations in Mataram City, including one main partnership partner, outlet managers, operational employees (approximately 10 people), and regular customers (estimated at 200 people per month based on sales data). The sample was determined purposively using key informant criteria such as partner owners and managers for in-depth interviews (n=3), full observation of one outlet, and a survey sample of 50 consumers and 8 employees using convenience sampling techniques for field efficiency (Singarimbun & Effendi, 2008). This sample selection is in accordance with the principle of purposive sampling in case studies, which emphasizes in-depth representation rather than broad generalizations, thus ensuring sufficient data saturation for investment feasibility analysis (Sugiyono, 2021; Creswell & Creswell, 2023).

Research Procedures

The research procedure began with a preliminary study through a review of secondary documents such as the Fore Coffee prospectus and data from the Mataram City Statistics Agency (BPS) to formulate the instrument. This was followed by 2-3 months of primary data collection in the field through interviews, observation, documentation, and surveys. The data was then processed through cleaning, categorization, and quantitative analysis using the investment feasibility formula, as well as qualitative analysis through triangulation. The data was then interpreted, cross-validated, and compiled into a report (Singarimbun & Effendi, 2008). These stages were designed sequentially and iteratively to maintain coherence, in accordance with standard mixed methods research procedures that ensure traceability and ethics through informed consent and respondent anonymity (Sudaryono, 2021; Emzir, 2021).

RESULTS

Research Data

Research data is information provided by respondents or related institutions or agencies in the form of data sets relevant to the research and must align with the research objectives. Research data can be presented in tables, graphs, figures, or other forms of presentation in accordance with scientific writing standards. This section contains research data in the form of data descriptions of the main variables and components measured in the study. These data descriptions are used to support the main analysis in answering the research questions and achieving the research objectives.

This study uses two complementary data sets, namely: (1) primary data obtained through field observations and operational estimates of Fore Coffee outlets in Mataram City, considering that the management does not provide direct access to internal data, and (2) secondary data sourced from official documents of Fore Coffee headquarters, such as annual reports and IPO prospectuses, which provide comprehensive information on the Company's performance and dynamics at the national level.

The integration of these two types of data allows for the preparation of an investment feasibility analysis that remains accurate and accountable, both in the micro context through operational observations of Mataram outlets and the macro context through an overview of the corporation's overall performance. The research data used in this study include:

Table 1. Operational Data of Fore Coffee Mataram (Case Study)

NO	OPERATIONAL DATA COMPONENTS	INFORMATION
1	Active operational date	January 24, 2025
2	Average Daily Transactions	± 300 transactions
3	Average Monthly Customers	± 9000 customers
4	Average Price per cup	Rp. 24,000
5	Monthly Income	9,000 customers × IDR 24,000 = IDR 216,000,000
6	Annual Income	IDR 220,800,000 × 12 = IDR 2,592,000,000

Source: Primary Data, results of researcher interviews with the Operational Supervisor of Fore Coffee Mataram (2025)

The data in the table above shows that Fore Coffee in Mataram has a fairly stable operational performance, with an average transaction volume of approximately 300 transactions per day. With an average selling price of Rp. 24,000 per cup, the potential annual revenue reaches more than Rp. 2.6 billion. This condition indicates that the Fore Coffee partnership business in Mataram City has promising financial prospects that require further analysis through an investment feasibility evaluation, particularly considering operational cost efficiency factors and the potential growth of the premium coffee market in the West Nusa Tenggara region.

Table 2. Initial Investment Cost Data

No	Initial Investment Cost Components	Amount (Rp)
1	Construction & renovation costs	650,000,000
2	Purchase of equipment & supplies	480,000,000
3	License rights & goodwill	500,000,000
4	Initial operating costs	130,000,000
	Total Initial Investment Cost	1,760,000,000

Source: Secondary Data of PT Fore Kopi Indonesia Tbk. (2024). Annual & Sustainability Report 2024; PT Fore Kopi Indonesia Tbk. (2025). Final Prospectus of PT Fore Kopi Indonesia Tbk.; results of interviews with the Operational Supervisor of Fore Coffee Mataram (2025).

This data is a reasonable estimate based on the standard for opening a medium category Fore Coffee outlet as stated in the company's Business Development Plan in the 2025 IPO prospectus which prioritizes the opening of 140 new outlets with a medium store composition of 80%.(PT Fore Kopi Indonesia, 2025)The initial investment cost structure of Rp1.76 billion per outlet is a realistic range for a Fore Coffee partnership in a mid-sized city like Mataram.

Table 3. Investment Financing Structure Data

NO	FINANCING SOURCES	AMOUNT (RP)	INFORMATION
1	Personal funds	1,000,000,000	56.8% of total investment
2	Bank loan funds	760,000,000	43.2% of total investment
3	Interest rate	8.75% / year	Interest rates follow the ratio

Source: Secondary data from the Annual & Sustainability Report of PT Fore Kopi Indonesia Tbk (2024) and the Final Prospectus of PT Fore Kopi Indonesia Tbk (2025).

The initial investment financing structure of the Fore Coffee partnership in Mataram City shows a combination of personal funds from business partners and external financing through musyarakah facilities. 56.8% of the total investment came from the partnership owners' personal capital, allocated for construction, licensing, and the purchase of major equipment. Meanwhile, 43.2% was obtained from the musyarakah financing facility of PT Bank Maybank Indonesia Tbk, which, with a total value of IDR 30 billion, was provided to support the construction of approximately 30 new Fore Coffee outlets in various regions of Indonesia, including Mataram.(PT Fore Kopi Indonesia, 2025).

Table 4. Monthly Operational Cost Data

NO	OPERATING COST COMPONENTS	± TOTAL (RP) / year
1	Employee salaries (16 people) (1 Supervisor, 2 Shift Leaders, 9 Baristas, 4 Cleaners)	40,200,000 x 12 months = Rp.482,400,000
2	Rent a location	12,000,000 x 12 months = 144,000,000
3	Electricity, water, internet	7,000,000 x 12 = 84,000,000
4	Maintenance & logistics	3,500,000 x 12 = 42,000,000
5	Promotion & other costs	3,000,000 x 12 = 36,000,000
	Total Operating Costs/Year	**788,400,000**

Source: Data processed by researchers (2025), based on the Abridged Prospectus of Fore Coffee, Final Prospectus of Fore Coffee IPO, Annual and Sustainability Report of Fore Coffee 2024, and the results of field observations at Fore Coffee outlets in Mataram City.

TotalThe operational costs of a Fore Coffee outlet in Mataram City are estimated at Rp. 788,400,000 per year, or approximately Rp. 65,700,000 per month. The largest cost components come from raw materials and employee salaries, indicating that business operations are heavily influenced by sales volume and service intensity. Rent, utilities, and other supporting costs are relatively fixed and serve to maintain the smooth running of daily operations. This cost structure reflects the characteristics of a modern, medium-scale coffee shop, where operational efficiency and customer stability are key factors in maintaining business profitability.

Table 5. Customer Volume and Daily Transaction Data

No	Month 2025	Average Transactions per Day	Operational Day	Total Customers/month	Growth (%)
1	January	220	7	1,540	-
2	February	260	28	7,280	+372.7%
3	March	280	31	8,680	+19.23%
4	April	290	30	8,700	+0.23%
5	May	288	31	9,610	+10.46%
6	June	295	30	8,850	-7.90%
7	July	305	31	9,455	+6.83%
8	August	310	31	9,765	+3.28%
9	September	308	30	9,600	-1.69%
Average (March-September)					**4.03%**

Source: Primary data from observations

The average growth is calculated using the March-September period to avoid the bias of customer surges in the initial operational phase (Grand Opening).

Data shows that Fore Coffee Mataram's customer base experienced a significant increase at the start of operations, particularly in February 2025, due to the impact of the outlet opening. Furthermore, growth remained stable, ranging from +0.23% to +19.23%, indicating the establishment of a loyal customer base. The slight declines in June and September were fluctuating but within reasonable limits. Overall, this pattern reflects a positive market response and the potential for continued growth in the following period. To obtain a representative growth rate unbiased by initial fluctuations due to the outlet opening, an average growth rate (*Growth Rate*) during the observation period as a basis for preparing income projections.

Based on March-September data to calculate the average monthly growth using a descriptive statistical approach and Compound Growth Rate (CAGR), namely:
For 5 year projection using CAGR:

$$CAGR = \left(\frac{9600}{7280}\right)^{1/7} - 1$$

$$CAGR = (1.3187)^{0.1429} - 1$$

$$CAGR = 0.0403 \; = \; 4.03\% \text{per month}$$

This shows that during the normal operational phase, the number of customers grew by an average of 4.03% per month, reflecting a relatively consistent and sustainable demand trend.

Although the calculation results show a positive growth trend, directly converting monthly growth to annual rates can potentially produce overly optimistic estimates. In investment feasibility studies, using excessive growth assumptions can lead to revenue overestimation and ultimately reduce the reliability of financial analysis results.

Therefore, this study does not use the conversion results as the basis for long-term projections. Instead, the revenue growth assumption is set at 15% per year, taking into account the growth of the coffee chain industry and the principle of conservatism in financial analysis. Assuming 15% annual growth, subsequent base-year revenue is projected using a step-by-step multiplier to generate a five-year financial performance estimate. This approach helps minimize

distortions caused by short-term fluctuations while providing a more realistic picture of the investment's potential cash flow.

Table 6. Projections for the Next 5 Years

NO	FORMULA	INCOME (Rp)
1	Foundation Year	2,592,000,000
2	2,592,000,000 x 1.15	2,980,800,000
3	Previous Year x 1.15	3,427,920,000
4	Previous Year x 1.15	3,942,108,000
5	Previous Year x 1.15	4,533,424,200

Source: Data processed by researchers (2026)

The projection shows Fore Coffee Mataram's revenue over five years, assuming a 15% annual growth rate. The baseline revenue is taken from the first year of operations, which is Rp. 2,592,000,000. Subsequently, revenue for subsequent years is calculated in stages using a multiplier formula (x 1.15), thus reflecting consistent and sustainable demand growth. This projection model is used for potential market expansion in the medium term and forms the basis for preparing income statements and investment cash flow analysis.

Table 7. Profit and Loss Statement for Year 1

COMPONENT	VALUE (Rp)
Income	2,592,000,000
HPP	(720,000,000)
Gross profit	**1,872,000,000**
Operating costs	(788,400,000)
Operating profit	**1,083,600,000**
Depreciation	(113,000,000)
EBIT	**970,600,000**
Interest expense	(66,500,000)
renewable energy	**904,100,000**
Tax (22%)	(198,902,000)
EAT (Net Profit)	**705,198,000**

Source: Data processed by researchers (2026) based on operational data and financial assumptions.

In the first year of operation, the Fore Coffee Mataram outlet generated revenue of Rp. 2,592,000,000, with a net profit of Rp. 705,198,000 after calculating COGS (raw materials), operational costs, interest expenses, and taxes. These results indicate that the outlet provides a positive profit margin and can be used as a basis for calculating cash flow for evaluating investment feasibility analysis.

Table 8. 5-Year Projected Profit and Loss Report

Components (Rp)	Year 1	Year 2	Year 3	Year 4	Year 5
Income	2,592,000,000	2,980,800,000	3,427,920,000	3,942,108,000	4,533,424,200
HPP	(720,000,000)	(756,000,000)	(793,800,000)	(833,490,000)	(875,164,500)
Gross profit	**1,872,000,000**	**2,224,800,000**	**2,634,120,000**	**3,108,618,000**	**3,658,259,700**
Operating costs	(788,400,000)	(839,208,000)	(893,361,000)	(951,084,271)	(1,012,616,172)
Operating profit	**1,083,600,000**	**1,385,592,000**	**1,740,758,640**	**2,157,533,729**	**2,645,643,528**

Depreciation	(113,000,000)	(113,000,000)	(113,000,000)	(113,000,000)	(113,000,000)
EBIT	**970,600,000**	**1,272,592,000**	**1,627,758,640**	**2,044,533,729**	**2,532,643,528**
Interest expense	(66,500,000)	(66,500,000)	(66,500,000)	(66,500,000)	(66,500,000)
renewable energy	**904,100,000**	**1,206,092,000**	**1,561,258,640**	**1,978,033,729**	**2,466,143,528**
Tax (22%)	(198,902,000)	(265,340,240)	(343,476,901)	(435,167,420)	(542,551,576)
EAT (Net Profit)	**705,198,000**	**940,751,760**	**1,217,781,739**	**1,542,866,309**	**1,923,591,952**

Source: Data processed by researchers (2026) based on operational reports and financial projection assumptions.

The income statement projections for years 2 to 5 are based on a number of consistent growth assumptions. Revenue is assumed to increase by 15% per year in line with customer volume growth, while COGS and Opening Expenses increase by 5% per year to reflect adjustments in raw material prices and operating costs. Depreciation and interest expense components are assumed to remain constant each year due to the straight-line method, assuming a five-year economic life of the asset without significant residual value, resulting in a constant financing structure throughout the projection period. Furthermore, corporate income tax is calculated at 22% of earnings before tax (EBT). These assumptions are used to produce realistic, measurable projections that can be used as a basis for investment feasibility analysis.

Based on the results of the five-year projected income statement calculation, the net profit after tax (EAT) component is then used as the basis for calculating net operating cash flow. In an investment feasibility analysis, cash flow not only considers EAT but also adds back depreciation as a non-cash expense. Therefore, operating cash flow is obtained by adding EAT and depreciation for each projected year. This calculation is necessary to assess the business's ability to generate cash and serves as the basis for testing investment feasibility indicators such as NPV, IRR, Payback Period, and Profitability Index.

Table 9. 5-Year Projected Operational Cash Flow

NO	EAT (RP)	DEPRECIATION (RP)	CASH FLOW (RP)
1	705,198,000	113,000,000	818,198,000
2	949,634,440	113,000,000	1,053,751,760
3	1,236,619,020	113,000,000	1,330,781,739
4	1,572,828,231	113,000,000	1,655,866,309
5	1,965,954,566	113,000,000	2,036,591,952

Based on this table, operating cash flow is derived from net profit after tax, adding depreciation expense, as depreciation is a non-cash expense. This approach is used to illustrate the business's ability to generate real cash during the investment period.

Research Analysis and Results

An investment feasibility analysis was conducted to assess the financial viability of the Fore Coffee partnership in Mataram City. This assessment used four main indicators: Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period (PP), and Profitability Index (PI). All indicators were calculated based on the annual net cash flow projections obtained from the research results in the previous section.

1. Net Present Value (NPV) Analysis

Net Present Value (NPV) is a method used to assess the feasibility of an investment by calculating the difference between the present value of cash inflows and the initial investment. This approach takes into account the concept of the time value of money, where the value of money today is more valuable than the same value in the future.(Nafisah et al., 2018).
Systematically, NPV can be formulated as follows:

$$\text{NPV} = \sum_{t=1}^{n} \frac{CF_t}{(1+r)^t} - I_0$$

Information:

- CF_t= Annual net cash flow
- R= Discount Rate
- I_0= Initial Investment

This study used a 10% discount rate based on the cost of capital and investment risk in the food and beverage retail sector. The use of a moderate discount rate aims to produce a more realistic feasibility estimate and avoid an optimistic bias in financial projections.

In contrast to constant cash flow capital, the cash flows in this study are uneven. Therefore, each annual cash flow is discounted individually according to the period in which it is received.

Table 9. Cash Flow PV Calculation

YEAR	CASHFLOW (Rp)	PV FACTOR 10%	PV (Rp)
1	818,198,000	0.909	744,716,682
2	1,053,751,760	0.826	870,408,954
3	1,330,781,739	0.751	999,916,486
4	1,655,866,309	0.683	1,130,456,719
5	2,036,591,952	0.621	1,264,715,603
Total PV	-	-	5,010,214,444

Source: data processed by researchers (2026)

NPV calculation

$\text{NPV} = Total\ PV - I_0$

$\text{NPV} = 5.010.214.444 - 1.760.000.000$

$\text{NPV} = Rp.3.250.214.444$

Because the NPV value > 0, this shows that the investment in the Fore Coffee partnership in Mataram City is financially feasible and is able to provide added value for investors over the capital costs incurred.

2. Internal Rate of Return (IRR) Analysis

*Internal Rate of Return (IRR)*is one of the main indicators in assessing the financial feasibility of an investment. IRR is defined as the discount rate that equates the present value of future cash inflows with the initial investment, or in other words, the internal rate of return that makes the NPV equal to zero. This method is used to assess the real level of profitability of a project and is often used as a reference by investors in comparing various investment alternatives. Mathematically, IRR is formulated as follows:

$$0 = \sum_{t=1}^{n} \frac{CF_t}{(1+IRR)^t} - I_0$$

Information:

- CF_t =cash flow in year t
- IRR= internal rate of return
- I_0= initial investment

The determination of IRR in this study was carried out using the interpolation method with two discount rates, namely 50% which produces a positive NPV and 70% which produces a negative NPV.

Table 10. Cash Flows for IRR Calculation

YEAR	CASHFLOW (Rp)
1	818,198,000
2	1,053,751,760
3	1,330,781,739
4	1,655,866,309
5	2,036,591,952

Source: Data processed by researchers (2026)

In this study, two discount rates are used to find the IRR, namely:

- r_1 = 50% → produces a positive NPV

$$\text{NPV}_{50\%} = \sum_{t=1}^{n} \frac{CF_t}{(1+0{,}5)^t} - I_0$$

Table 11. PV calculation at 50% discount

YEAR	CASHFLOW (Rp)	PV FACTOR 50%	PV (Rp)
1	818,198,000	0.667	545,530,166
2	1,053,751,760	0.444	467,866,981
3	1,330,781,739	0.296	393,111,394
4	1,655,866,309	0.198	327,862,536
5	2,036,591,952	0.132	270,435,128
	-	**Total PV-**	**2,004,806,250**

$$\mathbf{NPV_{50\%} = 2.004.806.250 - 1.760.000.000 = +244.806.205}$$

The calculation results show a positive NPV which means it is good (still below the IRR).r_1

Table 12. PV calculation at 70% discount

YEAR	CASHFLOW (Rp)	PV FACTOR 70%	PV (Rp)
1	818,198,000	0.588	481,511,184
2	1,053,751,760	0.346	364,597,108
3	1,330,781,739	0.203	270,148,490
4	1,655,866,309	0.119	197,048,091
5	2,036,591,952	0.070	142,625,437
	-	**Total PV-**	**1,457,930,310**

$$\mathbf{NPV_{70\%} = 1.457.930.310 - 1.760.000.000 = -302.069.690}$$

The calculation results show a negative NPV, meaning the discount rate is above the IRR. Therefore, the IRR must be between 40% and 70%. To obtain the IRR, the following interpolation formula is used:

$$IRR = r_1 + \frac{NPV_1}{NPV_1 - NPV_2}(r_2 - r_1)$$

$$IRR = 50\% + \frac{244.806.205}{244.806.205 - (-302.069.690)}(70\% - 50\%)$$

$$IRR = 50\% + (0{,}447\ x\ 20\%)$$

$$IRR = 58{,}9\%$$

Based on the calculation results, an IRR of 58.9% was obtained, indicating that the project was able to generate a rate of return well above the cost of capital of 10%. This indicates that the project was able to generate a significant rate of return and had a strong profit margin relative to the cost of capital.

Thus, based on the IRR > Cost of Capital criteria, investment in the Fore Coffee partnership business in Mataram City can be declared very financially feasible.

3. Payback Period (PP) Analysis

Payback Period(PP) is an investment appraisal method used to measure the time required for a project to recoup its initial investment through the net cash flows generated. This method emphasizes the positive aspect of the speed of capital recovery ( ), so the shorter the payback period, the lower the financial risk borne by the investor.

In this study, the project's net cash flow is not constant each year, but rather follows projected revenue and net profit increases over the five-year operational period. Therefore, the PP calculation is performed using the accumulated annual cash flow until the initial investment value of Rp. 1,760,000,000 is reached.

Table 13. Payback Period Calculation

EPIDEMIC	CASH FLOW (RP)	Accumulation (RP)
Investment	(1,760,000,000)	(1,760,000,000)
1	818,198,000	(941,802,000)
2	1,053,751,760	111,949,760
3	1,330,781,739	The capital has been returned

Based on the table, it is known that at the end of the first year the investment has not been fully returned and there is still Rp. 841,802,000 remaining. The return on investment occurs in the second year when the cumulative cash flow changes from negative to positive.

To obtain a more accurate time estimate, the following fractional year calculation is performed:

$$Fraksi = \frac{Sisa\ Investasi\ setelah\ tahun\ pertama}{Cash\ Flow\ tahun\ kedua}$$

$$Fraksi = \frac{941.802.000}{1.053.751.760}$$

$$Fraksi = 0{,}893\ tahun$$

Thus, the Payback Period can be calculated as:

PP = 1 + 0.893 = 1.893 years

If converted into months:
0.893 x 12 = 10.7 months (11 months)
So the Payback Period is 1 year 11 months.

Based on the calculation results, the Payback Period was achieved in the first year with a fraction of 0.893 years in the second year, or approximately 1 year and 11 months. This indicates that the investment is able to return capital in a relatively short time. The shorter the payback period, the lower the level of uncertainty faced by investors. Therefore, based on the Payback Period method, the investment in the Fore Coffee partnership business in Mataram City can be declared feasible.

4. **Profitability Index (PI) Analysis**

*Profitability Index (PI)*is an investment feasibility indicator used to measure a project's relative profitability relative to the amount of investment. The PI is calculated as the ratio of the present value of all future cash inflows to the initial investment. The higher the PI, the greater the benefit received for each unit of capital invested by the investor.

Systematically, PI is formulated as follows:

$$PI = \frac{PV\ Inflows}{I_0}$$

$$PI = \frac{5.010.214.444}{1.760.000.000}$$

$$PI = 2{,}85$$

A PI of 2.85 indicates that every Rp1.00 invested generates a benefit of Rp2.85 in present value. This indicates that the project not only recovers its initial investment but also creates added value of 185% of the investment.

In general, the PI eligibility standards are determined as follows:

Terms of the Decision	Information
PI > 1	Investment is worthy and generates added value
PI = 1	Investment is at break-even point
PI < 1	The investment is not feasible because the benefit value is lower than the investment costs.

Based on these criteria, the Fore Coffee partnership business project in Mataram City is declared financially feasible, because the PI value is > 1. This finding is in line with other financial feasibility indicators, namely a positive NPV of Rp. 3,250,214,444 and an IRR of 58.9%, which far exceeds the discount rate of 10%. Thus, this project is not only feasible, but also competitive and has the potential to generate attractive long-term returns for investors.

5. Sensitivity Analysis

A sensitivity analysis is conducted to test the project's financial resilience to potential changes in key assumptions. In investment feasibility studies, uncertainty is an unavoidable factor, so it's important to determine the project's resilience to a decline in performance. The scenario used in this study is a 10% revenue decline, assuming all other factors remain constant (ceteris

paribus). This scenario was chosen because revenue is the variable that most influences cash flow and business profitability.

Simulation results show that the decline in revenue impacts net profit and annual cash flow. Nevertheless, the project is still capable of generating positive cash flow with an estimated payback period of around 2.5 to 3 years. Furthermore, the internal rate of return remains well above the cost of capital, so the investment still meets financial feasibility criteria. These findings indicate that the project has a good level of resilience to the risk of declining sales. Therefore, the Fore Coffee partnership in Mataram City is not only feasible under normal conditions but also remains prospective even under moderate, less favorable scenarios.

DISCUSSION

This discussion interprets the results of a study on the financial feasibility of the Fore Coffee partnership business in Mataram City. This section explains the empirical findings from the perspectives of investment theory, business feasibility studies, and the return on investment paradigm. Furthermore, this discussion integrates the research findings with previous studies to assess the research's position within the scientific landscape and opportunities for future research development.

Reasoning of Research Results Based on Theory, Empirical and Non-Empirical

The results of the study indicate that the investment in opening a Fore Coffee outlet in Mataram City is declared financially feasible based on four main indicators of investment feasibility, namely: NPV, IRR, PP, and PI. Based on the calculation results, the NPV was obtained at Rp. 3,250,214,444, the IRR value was 58.9%, the Payback Period was ± 1 year 11 months, and the Profitability Index (PI) = 2.85.

Theoretically, an investment can be said to be feasible if it meets several criteria, such as: NPV ≥ 0, IRR exceeds the discount rate, PP is below the business time feasibility standard, and PI > 1. The findings of this study meet all of these parameters, so that the feasibility conclusion can be justified theoretically and empirically.

The results of this study are in accordance with the concept of financial feasibility proposed by Kasmir (2016) and Riyanto (2019), which states that a project receives added value (Value Creation) when the NPV is positive and Pi is greater than one. In addition, the IRR of 58.9% is an indicator of a return on investment that is much higher than the cost of capital of 10%, indicating a high and prospective level of business profitability. This is in line with the theory of the time value of money which explains that future cash flows must be returned to their present value before an investment decision is made.(Wiratama, 2020).

Non-empirically, a payback period (PP) of approximately 1 year and 11 months indicates a good capital turnover rate. In a franchise business model, the ideal payback period is considered to be between 3 and 5 years. With a PP period less than this standard, this business not only meets the eligibility requirements but also demonstrates the ability to generate rapid returns with minimal long-term risk. Therefore, this study addresses the research question regarding the feasibility of investing in Fore Coffee in Mataram City using a valid and logical quantitative approach.

Integration of Findings with Previous Studies and Direction of Research Development

The results of this study align with those of Aditya & Dewi (2022), which demonstrated that modern coffee shop businesses offer a high return on investment when supported by stable

daily sales volume. This study also corroborates the findings of Laura Octalia et al. (2024), who stated that the franchise beverage business model provides competitive returns when supported by efficient operational management and a growing urban consumer base. Therefore, this study is not a standalone study but rather part of a growing body of empirical literature supporting the coffee beverage industry's prospects as a viable investment sector.

This research differs from previous studies in the local context of Mataram City, where previous studies have mostly focused on large cities such as Jakarta, Surabaya, and Bandung. This research has novelty value because Fore Coffee only recently conducted its Initial Public Offering (IPO), so research examining the investment feasibility of the brand after the IPO is still very limited. Furthermore, Fore Coffee in Mataram City only has one operating outlet, so the existence of financial studies that assess the level of investment feasibility at the single outlet level is not widely found in previous literature.

Thus, this study provides an empirical contribution that demonstrates that modern franchise-based coffee businesses have the potential to thrive not only in major cities but also in regional economic centers with a middle-income consumer base, such as Mataram. Another novelty lies in the fact that no previous research has specifically analyzed the investment feasibility of Fore Coffee's first outlet in Mataram. Therefore, this study fills a research gap and can serve as an initial reference for potential investors looking to expand their business to non-metropolitan areas.

In the future, this research has the potential to be developed through price sensitivity simulations, demand fluctuations, digital-based marketing strategies, or comparative analysis with Fore Coffee outlets in other cities to assess investment resilience to market volatility and consumer dynamics. With this analytical foundation, the research can contribute to strengthening investment in the premium F&B sector, both locally and nationally.

CONCLUSION

This study concludes that investment in the Fore Coffee partnership business in Mataram City is highly financially viable, with an NPV of Rp3,250,214,444, an IRR of 58.9% far exceeding the 10% cost of capital, a Payback Period of 1 year and 11 months, and a Profitability Index of 2.85 indicating significant added value per unit of capital. A sensitivity analysis to a 10% revenue decline still yielded positive cash flow and a PP of under 3 years, demonstrating the project's resilience to market fluctuations. However, key limitations include reliance on a single outlet's initial revenue projection, lack of access to complete internal Fore Coffee data, and a 15% growth assumption that is vulnerable to regional economic changes.

Practical implications: These findings serve as a guide for potential partners to launch partnerships with high confidence in achieving rapid ROI, while Fore Coffee can use them to refine its franchise scheme in mid-sized cities. For further research, recommendations include a multi-outlet comparative study, the integration of Monte Carlo analysis for extreme risks, and an evaluation of the impact of digital marketing on customer growth outside of Java.

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