

FINANCIAL FEASIBILITY STUDY TO OPENING NEW BRANCHES (CASE STUDY: PT LINTAS NUSANTARA PERDANA)

Aulia Nur Cahyo
Donafeby Widyani
Sylviana Maya Damayanti

ABSTRACT

PT. Lintas Nusantara Perdana is a logistics company that has experience in the delivery service for at least 20 years. In 2020, there was a very significant decrease in profits. This situation enforces PT. Lintas Nusantara Perdana to make strategic decisions. One of them is to enlarge the market by opening three new branches. Opening new branches will increase the number of customer coverage, which will have an impact on increasing profits. In 2020 there are three new branches Semarang Baru, Yogyakarta Baru, and Bogor. This final project is intended to determine which branch is economically feasible. This assessment criterion uses collaboration between the Net Present Value (NPV) method, the Internal Rate of Return (IRR), the Payback Period (PBP), and the Profitability Index (PI). This final project aims to evaluate which branches are economically and financially feasible to continue and which branches cannot be continued. The results of this feasibility study are only Semarang and Bogor that economically and financially feasible. However, the Yogyakarta branch is not feasible. Based on the data, the NPV value was - IDR 50,424,637 and an IRR value of 0.55%. Both of these indicators show unacceptable values. Even though the profitability index is 1.02 and the payback period is four years 11 months and eight days, which are still acceptable in the criteria. So, it can be concluded that the company can continue the operational activities of the two branches, Semarang Baru and Bogor.

Keywords: Investment, Logistic, Feasibility Study

INTRODUCTION

The development of the Indonesian logistics business is increasingly widespread and the need for logistics services has gradually increased significantly. The Indonesian logistics industry that forecasted to increase by 30% in 2019 (Asosiasi Logistik dan Forwarder Indonesia, 2019). To answer this trend, The Indonesian government announced the XV Economic Policy Package on Business Development and Competitiveness of National Logistics Service Providers (Kominfo.go.id, 2017). It should be noted that the portion of logistics costs accounts for around 40% of the retail price of goods, and the largest component of logistics, which is 72%, is transportation costs (Kominfo.go.id, 2017). In addition, based on World Bank's data, Indonesia currently ranks 46 LPI with a score of 3.1 (lpi.worldbank.org, 2018). This is a good score and proves that Indonesia has good logistics quality, so this is an opportunity for companies in Indonesia to continue to expand their business. One of the logistics companies which operate in Indonesia is PT Lintas Nusantara Perdana. PT. Lintas Nusantara Perdana has been operating for almost 20 years (lintasnusantaraperdana.co.id, 2020). PT Lintas Nusantara Perdana offers third-party logistics (3PL) service (Lintasnusantaraperdana.co.id, 2020). Unfortunately, currently, PT Lintas Nusantara Perdana is a logistic company, the profits fell by 15% from January to June 2020. Therefore, the problem statement is there is a decrease in profits and is accompanied by declining sales. To increase the profit, PT Lintas Nusantara Perdana is trying to open three new branches. Opening new branches will increase the coverage number of the customer. Eventually, it will affect to increase the profit. There are three new branches; Semarang New Branch, Yogyakarta New Branch, and Bogor Branch. Before opening three branches, PT Lintas Nusantara Perdana needs to make research about the feasibility study of the three new branches. This research will conduct feasibility studies including the market situation and financial aspect using net present value (NPV) method, initial rate of return (IRR) method, payback period (PP) method, and profitability index (PI) method. Based on this analysis, PT Lintas Perdana Nusantara can decide the right branch to continue with, to increase the profit of the company.

LITERATURE REVIEW

Business Analysis In order to develop a good analysis, there are many techniques that can be used, in this research the analysis is divided into two parts external and internal analysis. The external analysis is using the PEST framework, Porter five forces, and using competitor analysis to analyze product advantages towards direct competitors to compete in the current industry. The PEST model offers a reasonably straightforward way of screening, tracking, and analyzing the significant external factors and patterns that could affect a business (Rothaermel, 2016). Porter's Five Forces are being used to analyze the market situation that the project will be included (Porter, 2008). Internal analysis is performed using resources, capabilities, and core competencies. Capability is a subset of resources that can make a firm achieve the full advantage of other resources (Barney & Hesterly, 2012). A core competency is a collection of competencies that cross divisional boundaries, are widespread within the corporation, and can do extremely well for the corporation (Wheelen and Hunger, 2012). Resources consist of a tangible and intangible asset (Rothamael, 2016). From the external analysis, from the Porter five forces analysis. The analysis in the form of industrial environmental analysis, it can be concluded that the PT. Lintas Nusantara Perdana's market is in a very competitive industry. This is indicated by the fact that there are many competitors engaged in the industry. In the competition for freight forwarding or logistics services, the amount of competition is enormous. There are several businesses in the freight or logistics sector. External forces have a great influence on PT. Lintas Nusantara Perdana. Generally, these businesses are very competitive and extremely fragmented, which can enhance competitive strength. The potential for the entry of new competitors allows many companies engaged in the shipping or logistics sector to apply strong strength (Porter, 2008). For example, many newcomers such as Indah

Cargo, Dakota, and others have now become more than the company PT Lintas Nusantara Perdana. In addition, the substitute products for PT. Lintas Nusantara Perdana's services in the form are at a low level, where people cannot have many choices to substitute this service. Results from competitor analysis indicate there are three direct competitors in the current industry which are Herona Express, Wahana, and Indah Logistic. The only advantage that PT. Lintas Nusantara Perdana has is only cheapest price of services compared to other competitors. From the PEST Framework, the political aspect that nowadays the tariff for import goods has been reduced (Beacukai.go.id, 2020). Besides, on its official website, the Ministry of Finance also provides import duty facilities and ease of carrying out imports during the COVID-19 pandemic. The Directorate General of Customs and Excise (DJBC) of the Ministry of Finance is committed to protecting the domestic industry from economic pressure during the COVID-19 pandemic by providing various facilities, especially in the customs and excise sector (Ministry of Finance, 2020). Meanwhile, the economical aspect in Indonesia is not in a good condition that shows from the growth rate, but the inflation rate still can be maintained (Focuseconomics.com, 2020). Moreover, in 2020, based on the BPS report in the 2nd quarter of 2020, there was a GDP contraction of -5.32% compared to the previous quarter (BPS, 2020). This happened because the world was hit by the coronavirus pandemic affected economies all around the world. Not a few businesses cannot survive this pandemic and eventually close their businesses. The logistics and warehousing sectors were particularly affected by the PSBB provisions. Based on the data obtained, there was a contraction of 29.22% (BPS, 2020).

As the technological aspect, With many trekking challenges from the materials to be supplied, not a few technology firms helping businesses are beginning to operate at this time. Super spring businesses, Global Trackers, etc for example. This will reduce the risk that the company will lose its goods or its fleet. To reduce the risks that occur, many large businesses also use their services. Moreover, it is also possible to link these trackers to Oslog, a website that records all the activities of each fleet (oslog.id, 2020). There is also a middle man online, such as Ritase (Ritase.com, 2020). The social aspect also already changing, from offline buying to online buying (McKinsey&Co, 2018). Internally, the resource that makes PT. Lintas Nusantara Perdana has a good financial resource, shows from the financial performance. This company also had a physical resource that spread away all over Java and Bali island. The capabilities analysis shows that PT. Lintas Nusantara Perdana has marketing skills such as cooperative relationships. For instance, the company is able to retain the customers by giving a fast response to the complaint. The company has core competencies that Focus on the logistics and diversification of services, can serve the delivery of various types of goods, and has a one-night service.

Investment Decision Analysis Analysis of investment is a broad term for a variety of investment assessment methods, the industrial sector, and economic trends. This could involve mapping past returns to predict future performance, choosing the type of investment that fits investors' needs most closely. The purpose of the investment analysis is to see how likely investments will be made and how appropriate they will be for certain investors. The proper entry value, the expected time horizon for holding investments, and also the role of investments within the portfolio as a whole are key factors in investment analysis. Net present value (NPV), internal rate of return (IRR), and payback period are the most frequently used ways of deciding investment choices (PP). NPV in his book, the net present value of a project is the sum of the present values of each of the cash flows—positive as well as negative—that occurs over the life of the project (Damodaran, 2010). The project's net present value (NPV) is estimated as the present value of the parent's net cash flows as a result of the project less the initial project outlay (Madura, 2014). The IRR is the discount rate for a project with one investment outlay initially made, which makes the present value of future after-tax cash flows equal to the investment outlay (Clayman, 2012). The discount rate that equates the present value of the asset's expected future cash flows to the asset's price is the internal rate of return on investment. That is the amount of cash needed to buy a right to these cash flows today (Pinto, 2020). The Payback Period approach is an estimation methodology for the return on investment period in a project or company (Damodaran, 2010). According to (Gitman, 2014) PP estimates are split into two, the first being for a project with the same cash flow trend from year to year. The discount rate that equates the present value of the asset's expected future cash flows to the asset's price is the internal rate of return on investment (Damodaran, 2010). For a project with an initial cash outflow followed by cash inflow, the profitability index is equal to the present value of cash inflows divided by the initial cash outflow (Gitman and Zutter, 2011).

METHODOLOGY

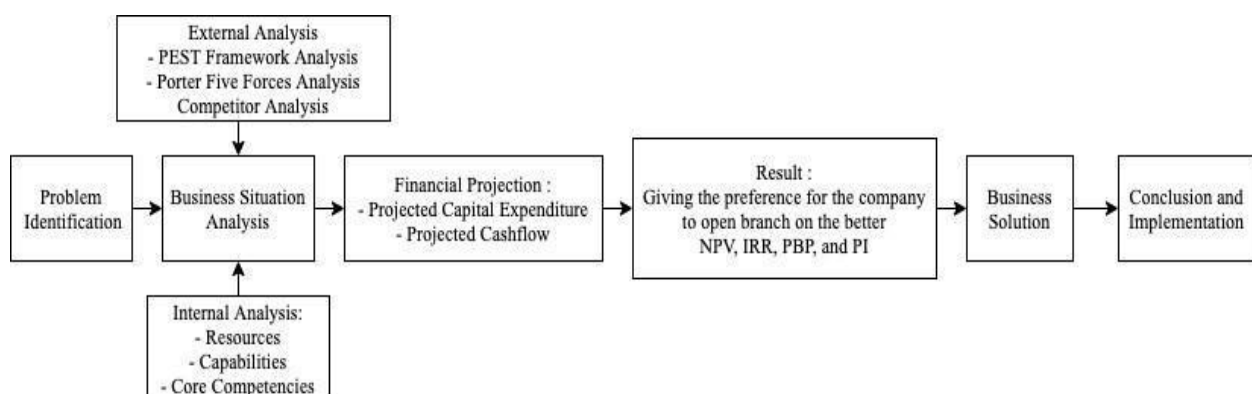


Figure 1. Flowchart Methodology

(Source : Author Analysis, 2020)

Based on figure 1, the research will be analyzed internal and external analysis. The research methodology is a way to systematically solve research problems. This quantitative research by performing a calculation process. The research is following three steps data collection, data processing, and data analysis. The data collection is based on documenting information used to support and the continuity of the research. This study uses secondary data. Secondary data is data or information already available. Secondary data consist of internal secondary data and external secondary data. Internal secondary data is data obtained by the author directly from the company such as expenditure data, sales data, and company profile data of PT Lintas Nusantara Perdana. Meanwhile, the external secondary data is obtained from articles, statistics and reports, and published sources from the internet. The data processing is by calculating the initial investment that the company should pay, forecasted income, operational costs, depreciation, and the amount of the tax value. At the last, we can find the cash flow from opening the branch. For data analysis, The research objective is to analyze financial feasibility studies for PT. Lintas Nusantara Perdana to opening new branches. The calculations are Net Present Value (NPV), Payback Period (PP), Internal Rate of Return (IRR), dan Profitability Index (PI).

FINDINGS AND ARGUMENT

Revenue Projection

The income source of PT. Lintas Nusantara Perdana is obtained only through the payment of services for the delivery of goods. Based on the revenue received by the branch that has been opened, this revenue data is then assumed, afterward, the monthly average is sought and multiplied by twelve months. That is the assumption of one-year assumption. The revenue of the company increased year by year, so in this study, the company assumes an average demand increase of 10 percent per year in accordance with the company's analysis and target.

Table 1. Revenue Projection of New Branch

Period	Semarang	Bogor	Yogyakarta
Year -1	409.275.248	223.836.000	154.732.252
Year -2	450.202.773	246.219.600	170.205.477
Year -3	495.223.050	270.841.560	187.226.025
Year -4	544.745.355	297.925.716	205.948.627
Year -5	599.219.891	327.718.288	226.543.490

(Source : Author Analysis, 2020)

Operating Expenditure

Expenditures for operational activities required expenses for electricity, gasoline, employee salaries, and maintenance. With the assumption that the payment of labor is three people, namely the branch head, admin, and porter. For electricity, maintenance and gasoline costs are considered fixed costs. It is also assumed that each year there is an increase of three percent as inflation occurs in Indonesia.

Table 2. Operating Expenditure of New Branch

Period	Operational Expense				Total
	Fuel Cost	Manpower	Maintenance	Electricity	
Year - 1	6.240.000	122.160.00 0	3.500.000	2.400.000	134.300.00 0
Year - 2	6.427.200	125.824.80 0	3.605.000	2.472.000	138.329.00 0
Year - 3	6.620.016	129.599.54 4	3.713.150	2.546.160	142.478.87 0
Year - 4	6.818.616	133.487.53 0	3.824.545	2.622.545	146.753.23 6
Year - 5	7.023.175	137.492.15 6	3.939.281	2.701.221	151.155.83 3

(Source : Author Analysis, 2020)

Weighted Average Cost of Capital

The Beta data resources are from Damodaran as amount as 0,86 (Damodaran, 2020) The cost of equity as amount as 14% and the cost of debt as amount as 7%. Then the calculation weighted averages cost of capital can be calculated. This is amount is the minimum of the rate the company could accept if the new branch will be opened. From the calculation, it is obtained that the weight average cost of capital is 10%, which is the 10% reference value for this company to determine the project that will run and also the benchmark interest (required return) for the company in the return on its investment.

Feasibility Indicator

A feasibility test may be developed from the FCFE calculations. In addition, rational decisions as to whether an investment is feasible or not feasible can be determined with the help of feasibility analysis. Therefore, using Net Present Value (NPV), Payback Period, and Internal Return Rate, there are three methods for evaluating (IRR). The objective of Net Present Value is to identify net cash flow changes related to the purchase of fixed assets and discounts up to present value. To find out the total NPV, in order to make the project acceptable, we need to compare all the proposed projects with a positive NPV. The payback period is the determination period to generate sufficient cash flow from a project to pay the initial investment, investors can calculate the project risk with the aid of the payback period because it will concentrate on the payback period. Finally, as an indicator of project investment efficiency, the Internal Rate of Return.

Table 3. Feasibility Indicator

Indicator	Name of Branches		
	Semarang	Bogor	Yogyakarta
NPV	823.194.277	188.048.900	-50.424.637
IRR	120%	40%	0,55%
PBP	0,9	2,31	4,94
PI	7	3	1,02

(Source : Author Analysis, 2020)

At the Semarang branch, the NPV of IDR 823,194,277 was obtained, and a payback period as long as 11 months. In terms of profitability index, the resulting value is seven with an initial rate of return of 120%. For the Bogor branch, the NPV value was IDR 188,048,900 and a payback period as long as two years and four months. In terms of the profitability index, the value is 3 with an initial rate of return of 40%. For the Yogyakarta Baru branch, several aspects were not fulfilled, such as the NPV aspect which was valued at - IDR 50,424,637, and IRR which resulted in 0.55%. However, in terms of the payback period as long as 4 years 11 months 8 days, and the acceptable profitability index, which is above a value of 1.0, which results in 1.02.

CONCLUSIONS

The conclusion according to the financial feasibility study of opening a new branch of PT Lintas Nusantara Perdana is the investment of Semarang's new branch and Bogor branch is feasible. Moreover, the Yogyakarta new branch is not feasible. The decision is being made by considering four methods, there is payback period (PP), net present value (NPV), internal rate of return (IRR), and profitability index (PI), state that only Semarang Baru and Bogor branches are eligible to continue operating. Meanwhile, the New Yogyakarta branch is not feasible with NPV and IRR. At the Semarang branch, the NPV of IDR 823,194,277 was obtained, and a payback period as long as 11 months. In terms of profitability index, the resulting value is seven with an initial rate of return of 120%. From all calculation aspects, this branch is feasible to continue its operational activities. For the Bogor branch, the NPV value was IDR 188,048,900 and a payback period as long as two years and four months. In terms of the profitability index, the value is three with an initial rate of return of 40%. From all calculation aspects, this branch is also feasible to continue its operational activities. However, at the Yogyakarta Baru branch, several aspects were not fulfilled, such as the NPV aspect which was valued at - IDR 50,424,637, and IRR which resulted in 0.55%. However, in terms of the payback period as long as four years 11 months eight days, and the acceptable profitability index, which is above a value of 1.0, which results in 1.02.

RECOMMENDATION

Semarang's new branch and Bogor branch can be continuing to operate, considering opening a new branch in Yogyakarta is economically not feasible and this is a branch that has already opened. To minimize losses from the branch that has been opened, so there is an opportunity to convert the branch of Jogjakarta into an agent. Opening up an agent is one of the collaboration solutions introduced by PT Lintas Nusantara Perdana.

REFERENCES

- Bea Cukai (2020). Siap siap aturan impor barang kiriman terbaru mulai 30 Januari 2020. Retrieved from <https://www.beacukai.go.id/berita/siap-siap-aturan-impor-barang-kiriman-terbaru-mulai-berlaku-30-januari-2020.html>
- Badan Pusat Statistik, 2020. Ekonomi Indonesia Triwulan II 2020 Turun 5,32 Persen. Retrieved from <https://www.bps.go.id/pressrelease/2020/08/05/1737/-ekonomi-indonesia-triwulan-ii-2020-turun-5-32-persen.html>
- Clayman, M. R., Fridson, M. S., & Troughton, G. H. (2012). *Corporate finance: A practical approach* (Vol. 42). John Wiley & Sons.
- Damodaran, A. (2010). *Applied corporate finance*. John Wiley & Sons.
- Focusconomics.com (2020). Inflation dropped to its lowest level since May 2000 in august. Retrieved from <https://www.focus-economics.com/countries/indonesia/news/inflation/inflation-drops-to-lowest-level-since-may-2000-in-august>

- Gitman, L., & J. Zutter, C. J. (2011). *Principles of Managerial Finance, Brief*. Pearson Higher Ed.
- Kementerian Komunikasi dan Informatika, (2017). Paket Ekonomi 15: Efisiensi Logistik Tingkatkan Daya Saing. Retrived from https://kominfo.go.id/content/detail/9948/paket-ekonomi-15-efisiensi-logistik-tingkatkan-daya-saing/0/artikel_gpr
- Kementerian Keuangan (2020). DJBC berikan fasilitas bea masuk dan kemudahan tatalaksana impor di masa pandemic covid 19. Retrieved from <https://www.kemenkeu.go.id/publikasi/berita/djbc-berikan-fasilitas-bea-masuk-dan-kemudahan-tatalaksana-impor-di-masa-pandemi-covid-19/>
- Lintas Nusantara Perdana (2020). About Us. Retrieved from lintasnusantaraperdana.co.id/perusahaan
- Madura, J. (2020). *International financial management*. Cengage Learning.
- Mckinsey&Company (2018). The digital archipelago: How online commerce is driving Indonesia's economic development. Retrieved from https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Asia%20Pacific/The%20digital%20archipelago%20How%20online%20commerce%20is%20driving%20Indonesias%20economic%20development/FINAL_The-digital-archipelago-How-online-commerce-is-driving-Indonesias-economic-development.ashx
- Pinto, J. E. (2020). *Equity asset valuation*. John Wiley & Sons.
- Porter, M. E. (2008). *On competition*. Harvard Business Press.
- Rothaermel, F. T. (2016). *Strategic management: concepts* (Vol. 2). McGraw-Hill Education.
- Supply Chain Indonesia (2019) Prospeknya Cerah, Bisnis Logistik Diprediksi Tumbuh Lebih 30% di 2020. Retrieved from <https://supplychainindonesia.com/prospeknya-cerah-bisnis-logistik-diprediksi-tumbuh-lebih-30-di-2020/>
- Wheelen, T. L., & Hunger, J. D. (2012). *Strategic Management and business. Policy: Toward Global Sustainability*. Pearson Education
- World Bank (2018). Global Rankings 2018 Retrieved from <https://lpi.worldbank.org/international/global>

Aulia Nur Cahyo
School of Business and Management
Institut Teknologi Bandung
Email : aulia_cahyo@sbm-itb.ac.id

Donafeby Widayani
School of Business and Management
Institut Teknologi Bandung
Email : Donafeby_widayani@sbm-itb.ac.id

Sylviana Maya Damayanti
School of Business and Management
Institut Teknologi Bandung
Email : sylvianamaya@sbm-itb.ac.id