

# Investment Analysis of Startups Company PT. Zaps Teknologi Service Application of BPJS

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## ABSTRACT

**Background** – Health facilities and hospitals are government facilities in serving the community in the health sector, BPJS is one of the media used by the government in carrying out these services. PT. Zaps Teknologi is a company engaged in technology and information with the product of Dokter Tunggu (DOKU). This application was created to improve BPJS services in Hospitals and Health Facilities. The application has innovations in BPJS services where this application has features that are able to accommodate BPJS services. Online referrals, real time conditions from the Referral Hospital are some of the features embedded in this application, besides that in the next few years PT. Zaps Teknologi will improve services by adding features to this application. The addition of features requires detailed financial analysis and precise investment calculations

**Method** - Investment analysis using NPV, ROI, PP and IRR

**Result** – This analysis shows the investment value for investors in making investment decisions.

**Keyword:** Investment, BPJS, Financial Analysis

## 1. BACKGROUND

Providing good service is one form of promising service (Hanifatul et al., 2020). Good service in the public sector must have benefits for members of the community. One of them is services in the health sector which is one of the government services for the community. BPJS is a service in the health sector that covers all people in Indonesia, services to the community not

only involve existing human resources, although excellent service can be provided if the existing workforce has high competence and motivation. In addition to the workforce, another service factor is technology that can be applied to services in health facilities or hospitals through online that are connected to the hospital management information system. (Royyadi and Nofierni, 2021) Innovation that continues to be developed for health facility services is one way that is expected to meet customer expectations and needs in developing people's lifestyles in Indonesia. PT. Zaps Teknologi makes an application for BPJS patients and has a functions to improve BPJS services at level I Health Facilities or Hospital. (Royyadi and Nofierni, 2021) With the number of hospitals as many as 2,813 spread throughout Indonesia, making it a large market share. The number of participants in the National Health Insurance (JKN) program organized by BPJS Health reached 222.5 million people as of December 31, 2020. This figure is equivalent to 81.3% of the population in Indonesia. In detail, the recipients of contribution assistance (PBI) from the APBN and APBD are 132.8 million people. Contributions for this category are paid by the government. Furthermore, there are 55.1 million wage-earning workers (PPU), both civil servants and business entities, their contributions are deducted from their salaries. Lastly, independent participants consisting of non-wage workers (PBPU) as many as 30.4

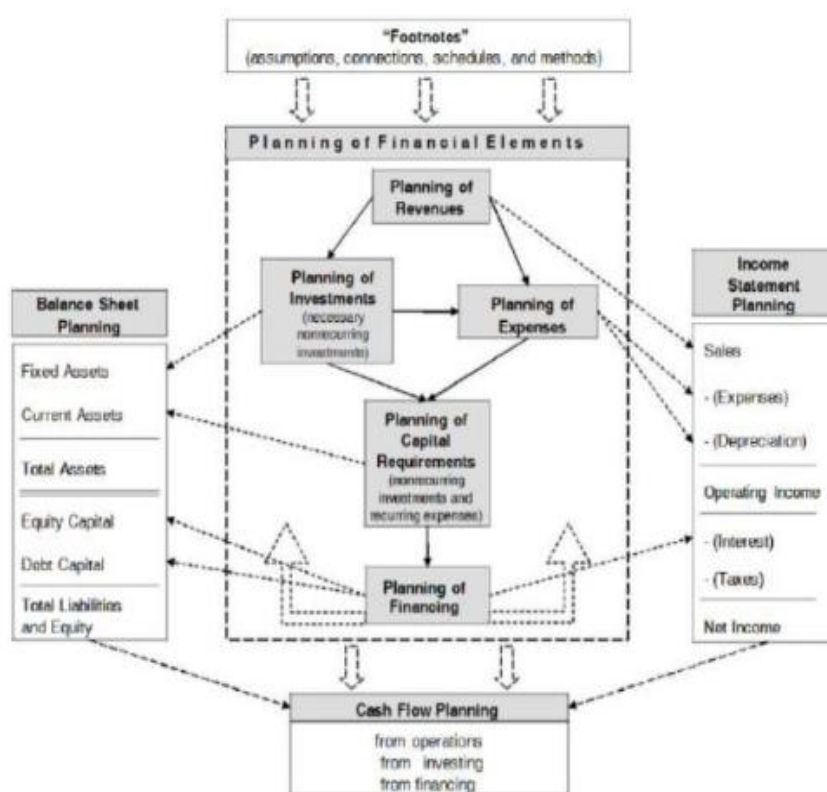
million people and non-workers (BP) as many as 4.1 million people. This amount requires services that are felt and enjoyed directly by customers and in accordance with expectations.

## 2. MATERIALS AND METHOD

The investment feasibility analysis is calculated with financial planning, the planning includes income planning, financing planning, capital needs planning and fulfilling capital needs (Kwarta et al.,

2020). Parameters calculated for investment feasibility for five years include Return on Investment, Net Present Value, Payback Period and Internal Rate of Return.(Prihambodo et at., 2020) The purpose of the investment calculation is to see to what extent the invested capital is profitable for investors and of course for other capital owners, as well as to determine the planning of financial investment strategies in the future.. (Hanifatul et. al., 2020)

## 3. RESULT AND DISCUSSION



Gambar 3.1 Financial Element Planning of PT. Zaps Teknologi

The elements of financial planning PT. Zaps Teknologi consists of income planning, cost planning, investment planning as well as capital requirements planning and financing planning.

Income statement by PT. Zaps Technology includes the company's 5-year plan to earn revenue that has several sources other than application sales, namely improving application services in the form of features that will be embedded in the application, to capture the company's financial strategy, the company should have added value in financial planning, (Kusuma et al., 2021).

Tabel 3.1 Income planning

Tahun	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
Jumlah Target Rumah Sakit	35	35	25	25	25
Doku Price	120.000.000	120.000.000	120.000.000	120.000.000	120.000.000
Income from Application	4.200.000.000	4.200.000.000	3.000.000.000	3.000.000.000	3.000.000.000
Revenue Stream					
Hosting Web		1.500.000.000	5.062.500.000	9.639.000.000	14.250.000.000
Help Desk			1.080.000.000	1.680.000.000	2.375.000.000
Application Installment			37.500.000	63.000.000	87.500.000
E-payment					375.000.000
Total	4.200.000.000	5.700.000.000	9.180.000.000	14.382.000.000	20.087.500.000

**Tabel 3.2 Cost Planning**

Uraian	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
Pemasaran	Rp 935.500.000	Rp 1.406.025.000	Rp 1.768.700.000	Rp 2.249.125.000	Rp 2.694.500.000
Operasional	Rp 1.068.421.860	Rp 1.590.008.847	Rp 1.788.781.000	Rp 2.389.683.157	Rp 3.105.475.676
Sumber Daya Manusia	Rp 1.764.010.800	Rp 1.764.010.800	Rp 2.066.713.200	Rp 2.706.828.400	Rp 3.048.831.920
Manajemen Risiko	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000
Total Biaya	Rp 3.779.932.660	Rp 4.772.044.647	Rp 5.636.194.200	Rp 7.357.636.557	Rp 8.860.807.596

PT. Zaps Teknologi has 4 cost elements in cost planning which are marketing, operational and HR as well as risk management costs, in the course of the company's business the focus is on product development (Doku) so that operational costs and HR have a larger portion than marketing costs, this is in accordance with the details above costs.

Investment planning PT. Zaps Technology must reflect that positive and healthy financial behavior leads to higher levels of financial well-being. (Lidwina et al., 2020) this is reflected in the investment analysis of PT. Zaps Teknologi. Investment

planning consists of the company's capital structure and the fulfillment of that capital.

**Tabel 3.3 Capital Needs**

Kebutuhan Modal	
Total Capital Expenditure	Rp 1.719.015.766
Total Operating Expenditure	Rp 3.779.932.660
Total Kebutuhan Modal	Rp 5.498.948.426

Capital comes from the founders and investors who invest their capital, the composition of the large capital consists of 70% from the four founders and 30% from investors, angel investors are chosen by PT. Zaps Teknologi to invest in the company. The level of efficiency of capital planning is an effort to increase the probability of (Sutjiadi et al., 2020) the company so that the capital will be used to meet the needs of capital expenditure and operating expenditure.

**Tabel 3.4 Income Statement**

Keterangan	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
Penjualan	Rp 4.200.000.000	Rp 5.700.000.000	Rp 9.180.000.000	Rp 14.382.000.000	Rp 20.087.500.000
Biaya					
Total Biaya Marketing	Rp 935.500.000	Rp 1.281.025.000	Rp 1.478.700.000	Rp 1.869.125.000	Rp 2.194.500.000
Biaya Operasional					
Total Biaya Operasional	Rp 1.068.421.860	Rp 1.590.008.847	Rp 1.788.781.000	Rp 2.389.683.157	Rp 3.105.475.676
Biaya SDM					
Total Biaya SDM	Rp 1.764.010.800	Rp 1.831.964.400	Rp 2.066.713.200	Rp 2.706.828.400	Rp 3.047.831.920
Biaya Manajemen Risiko					
Asuransi	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000
Total Biaya Manajemen Risiko	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000	Rp 12.000.000
Total Biaya Biaya	Rp 3.779.932.660	Rp 4.714.998.247	Rp 5.346.194.200	Rp 6.977.636.557	Rp 8.359.807.596
EBITDA	Rp 420.067.340	Rp 985.001.753	Rp 3.833.805.800	Rp 7.404.363.443	Rp 11.727.692.404
Biaya Penyusutan					
Total Biaya Penyusutan dan Amortisasi	Rp 31.800.000	Rp 31.800.000	Rp 31.800.000	Rp 31.800.000	Rp 31.800.000
EBIT	Rp 388.267.340	Rp 953.201.753	Rp 3.802.005.800	Rp 7.372.563.443	Rp 11.695.892.404
Pajak	Rp 85.418.815	Rp 209.704.386	Rp 760.401.160	Rp 1.474.512.689	Rp 2.573.096.329
Laba Setelah Pajak / EAT	Rp 302.848.525	Rp 743.497.367	Rp 3.041.604.640	Rp 5.898.050.754	Rp 9.122.796.075

In the table above it can be illustrated that the profit earned was smaller in the early years this was because the company focused on sales to hospitals, the 3rd to 5th year the increase in profit was

increasingly visible, this happened because in those years the effect of the increase services with various existing features are able to boost the company's revenue.

**Tabel 3.5 Balance sheet planning**

Keterangan	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
<b>Aktiva</b>					
<b>Aktiva Berwujud</b>					
Aktiva Lancar					
Total Aktiva Lancar	Rp 10.078.322.466	Rp 11.839.210.474	Rp 15.600.705.755	Rp 21.946.647.150	Rp 31.964.633.866
Aktiva Tetap					
Total Aktiva Tetap	Rp 267.234.484	Rp 267.234.484	Rp 267.234.484	Rp 267.234.484	Rp 267.234.484
<b>Total Aktiva Berwujud</b>	Rp 10.345.556.951	Rp 12.106.444.959	Rp 15.867.940.239	Rp 22.213.881.634	Rp 32.231.868.350
<b>Aktiva Tidak Berwujud</b>					
Legalias dan sertifikasi	Rp 4.000.000	Rp 4.000.000	Rp 4.000.000	Rp 4.000.000	Rp 4.000.000
Amortisasi	Rp (1.000.000)	Rp (1.000.000)	Rp (1.000.000)	Rp (1.000.000)	Rp (1.000.000)
<b>Total Aktiva Tidak Berwujud</b>	Rp 3.000.000	Rp 3.000.000	Rp 3.000.000	Rp 3.000.000	Rp 3.000.000
<b>Total Aktiva</b>	Rp 10.348.556.951	Rp 12.109.444.959	Rp 15.870.940.239	Rp 22.216.881.634	Rp 32.234.868.350
<b>Passiva</b>					
<b>Kewajiban</b>					
<b>Kewajiban Jangka Pendek</b>					
Total Kewajiban Jangka Pendek	Rp 45.000.000	Rp 35.000.000	Rp 37.000.000	Rp 35.000.000	Rp 40.000.000
<b>Total Kewajiban Jangka Panjang</b>					
Total Kewajiban	Rp 45.000.000	Rp 35.000.000	Rp 37.000.000	Rp 35.000.000	Rp 40.000.000
Modal	Rp 10.303.556.951	Rp 12.074.444.959	Rp 15.833.940.239	Rp 22.181.881.634	Rp 32.194.868.350
Total Modal	Rp 10.303.556.951	Rp 12.074.444.959	Rp 15.833.940.239	Rp 22.181.881.634	Rp 32.194.868.350
<b>Total Passiva</b>	Rp 10.348.556.951	Rp 12.109.444.959	Rp 15.870.940.239	Rp 22.216.881.634	Rp 32.234.868.350

PT. Zaps Teknologi shows the movement of current assets which increases every year this is in accordance with the transactions carried out by the company,

while in liabilities there are accounts payable in line with the business activities of the company.

**Tabel 3.6.Cashflow**

Keterangan	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
<b>Arus Kas Operasional</b>					
Labu/Rugi	Rp 302.848.525	Rp 645.997.367	Rp 2.809.604.640	Rp 5.594.050.754	Rp 8.732.796.075
Piutang Usaha		Rp 900.000.000	Rp (750.000.000)	Rp (940.000.000)	Rp (1.200.000.000)
Akumulasi Penyusutan	Rp 123.890.641	Rp 123.890.641	Rp 123.890.641	Rp 123.890.641	Rp 123.890.641
Akumulasi Amortisasi	Rp 1.000.000	Rp 1.000.000	Rp 1.000.000	Rp 1.000.000	Rp 1.000.000
Hutang	Rp 45.000.000	Rp (10.000.000)	Rp 2.000.000	Rp (5.000.000)	Rp 10.000.000
<b>Arus Kas Bersih Operasional</b>	Rp 472.739.166	Rp 1.660.888.008	Rp 2.186.495.281	Rp 4.773.941.395	Rp 7.667.686.716
<b>Arus Kas Investasi</b>					
Pembelian Asset	Rp (1.595.125.125)				
<b>Arus Kas Bersih Investasi</b>	Rp (1.595.125.125)	Rp -	Rp -	Rp -	Rp -
<b>Arus Kas Pembiayaan</b>					
Modal Sendiri	Rp 3.849.263.898				
Investor	Rp 1.649.684.528				
<b>Arus Kas Bersih Pembiayaan</b>	Rp 5.498.948.426	Rp -	Rp -	Rp -	Rp -
Selisih Kas	Rp 4.376.562.466	Rp 1.660.888.008	Rp 2.186.495.281	Rp 4.773.941.395	Rp 7.667.686.716
Saldo Kas Awal	Rp 4.376.562.466	Rp 4.376.562.466	Rp 6.037.450.474	Rp 8.223.945.755	Rp 12.997.887.150
Saldo Kas Akhir	Rp 4.376.562.466	Rp 6.037.450.474	Rp 8.223.945.755	Rp 12.997.887.150	Rp 20.665.573.866

The acceptance of cash along with its mutations and changes are presented in the cash flow planning, cash flow planning of PT. Zaps Technology consists of 3 activities, namely operations, investment and financing. For operations sourced from profit/loss on accounts receivable and others, mutations that occur due to company business transactions, for investment sourced from the purchase of the company's initial assets and for financing from capital. Cash planning data according to the table above.

The feasibility of the calculated investment is based on the prepared financial statements. Financial statements are prepared for five years including income statement, balance sheet, and cash flow (Azmal, Negoro, Yanuar, & Syah, 2019). Furthermore, the calculation of investment analysis consists of ROI, NPV, PP and IRR.(Hanifatul et al., 2020) and (Benjamin B. Gansel, 2000.)

**Tabel 3.7 Return on Investment**

	Lab	Investasi	ROI
Tahun 1	Rp 302.848.525	Rp 5.498.948.426	6%
Tahun 2	Rp 645.997.367	Rp 5.498.948.426	12%
Tahun 3	Rp 2.809.604.640	Rp 5.498.948.426	51%
Tahun 4	Rp 5.594.050.754	Rp 5.498.948.426	102%
Tahun 5	Rp 8.732.796.075	Rp 5.498.948.426	159%

ROI is a calculation that is used as a parameter to calculate an investment that is feasible or not, the results of the calculation for ROI can be seen in the picture above.

The data shows that within 5 years the company has experienced an increase, this is influenced by an increase in revenue due to the development of DOKU application products.

**Tabel 3.8 NPV, PP, PI and IRR**

Biaya awal		5.498.948.426	
BI Rate		3,50%	
	Proceed (Rp)	Cumulative Proceed (Rp)	Discounted Proceed (Rp)
Biaya awal	Rp (5.498.948.425)		
Tahun 1	Rp 302.848.525	Rp 302.848.525	Rp 292.248.827
Tahun 2	Rp 645.997.367	Rp 948.845.893	Rp 623.387.459
Tahun 3	Rp 2.809.604.640	Rp 3.758.450.533	Rp 2.711.268.478
Tahun 4	Rp 5.594.050.754	Rp 9.352.501.287	Rp 5.398.258.978
Tahun 5	Rp 8.732.796.075	Rp 18.085.297.362	Rp 8.427.148.212
	Perusahaan	Pembanding	Kesimpulan
NPV	10.158.478.730	Rp 5.498.948.426	Layak
Payback Period	2,5	Lebih Cepat	Layak
Profitability Index	2,85	Lebih Besar dari 1	Layak
IRR	34%	Lebih besar dari 3,50%	Layak

For NPV, it is used to calculate the difference between the present value of cash flows in and the current value of cash flows out in a certain period. NPV is a reference in determining whether a company's finances are feasible or not, PT. Zaps Teknologi for five years has an NPV calculation of Rp. 10,158,478,730. with a BI Rate of 3.5% This shows that the existing investment is very good because it exceeds the costs incurred, which is Rp. 5,498,948,426,- The payback period is achieved in the 2nd year and 5th month, The faster the investment returns, the better the company is running, Payback Period (PP) is the time needed to return the value of the investment that has been issued. To calculate PP, the parameter used is the calculation of the payback period

of PT. Zaps Teknologi which is intended to find out how long the investment spent will return to the company. The discount rate that produces NPV = 0 is the Internal Rate of Return, IRR is the maximum capital that a business can afford. Calculation of PT. Zaps Technology has a positive value of 34%, this shows that the profits generated are greater when compared to the capital that has been issued.

**Tabel 3.9 Ratio of PT. Zaps Teknologi**

Uraian	Tahun 1	Tahun 2	Tahun 3	Tahun 4	Tahun 5
<b>Rasio Likuiditas</b>					
Current Ratio	224	338	422	627	799
Quick Ratio	222	336	419	624	797
Cash Ratio	97	172	222	371	517
<b>Rasio Profitabilitas</b>					
Net Profit Margin	10%	15%	39%	49%	56%
Return on Asset	2.93%	5.33%	17.70%	25.18%	27.09%
Return on Equity	3%	5%	18%	25%	27%
<b>Rasio Solvabilitas</b>					
Debt to Equity Ratio	0,44%	0,29%	0,23%	0,16%	0,12%
Debt to Asset Ratio	0,43%	0,29%	0,23%	0,16%	0,12%

The calculation of the analysis of the financial performance of PT Zaps Teknologi can be seen in 3.8 where the calculation of the ratio that describes the financial condition of the company, the ratio consists of the liquidity ratio, profitability ratio and solvency ratio. The three ratios are indicators of the company's development assessment using data from financial statements during the accounting period. This ratio is used by company management in deciding company policies.

#### 4. CONCLUSION

Based on investment analysis, calculation, financial analysis and income planning that has been calculated (ROI, NPV, PP and IRR), it can be concluded that the investment planned by PT. Zaps Technology for 5 years is feasible to implement. PT. Zaps Teknologi has good financial performance which allows investors to consider investing their capital.

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