## A-1. Deal Rationales

***Reasons for Investment:***

- Potential High Exiting Return and Exit Certainty: ZN's growth, as evidenced by its 17x increase in gross revenue over two years, indicates significant potential for further growth. Investing in ZN could provide Alibaba with a potential high return when IPO. Besides, ZN has a clear timeline for IPO, which assures the certainty of exit.
- Strategic Expansion: ZN's focus on catering to emerging markets aligns with Alibaba's global expansion strategy. Investing in ZN could provide Alibaba with a foothold in these markets, facilitate further expansion opportunities and generate extra synergies.
- Innovative Technology: ZN's use of AI/ML algorithms for inventory management and sales optimization demonstrates innovative technological capabilities. Alibaba could leverage ZN's technology to enhance its own operations and stay ahead in the competitive e-commerce landscape.

***Reasons for Staying Away:***

- Horizontal Competition: Alibaba may already have significant investments in similar e-commerce platforms or may prefer to focus on strengthening its existing ventures rather than investing in a potential competitor like ZN.
- Financial Risk: Despite ZN's growth potential, it has a low revenue retention rate and its revenue mainly comes from new customers. There may be risks of slowing growth and loss of retention if the market recession decreases the overall consumption.
- Lack of Control: Investing 20% in ZN may not provide Alibaba with sufficient control over the company's operations and strategic direction. Alibaba may prefer to invest in ventures where it can exert greater control or alignment with its long-term objectives.

## A.2 Due Diligence Metrics

***Key Metrics to Due Diligence before Investment:***

- Revenue Growth and Profitability: Examine the company's historical revenue growth rate and projected future growth potential to assess its scalability and market demand. Analyzing the company's profit margins, including gross margin, operating margin, and net margin, to understand its efficiency and sustainability.
- Cash Flow and Financial Health: Reviewing the company's cash flow statement, balance sheet, and debt levels to assess its financial stability, liquidity, and ability to fund future growth initiatives.
- Capital Effect, Customer Acquisition and Retention: Analyze the revenue retention and the capital effect (i.e. marketing expense) on additions. Evaluating the company's customer acquisition cost (CAC) and customer lifetime value (CLV) to gauge its ability to attract and retain customers profitably.
- Market Position and Competition: Assessing the company's competitive landscape, market share, and differentiation strategies to understand its position within the industry and potential for sustainable growth.
- Inventory, Logistics Chain and Delivery: To diligent on company's operational efficiency, scalability, and potential risks associated with these aspects of a company's business.

### *Company's Performance on Metrics and Management's BP:*

- Current Performance: Maintained a high growth rate higher than 20%. Had gross revenue of \$398 million and net revenue of \$271 million. Low retention rate below 10%. Inventory averaged at 18 days with delivery days of 9.5.
- Management's Projection: ZN aims to increase its quarterly gross revenue to \$3 billion, or an annualized run rate of \$12 billion by Q4 CY 20, targeting profitability with \$96 million in profit before tax. It anticipates reducing inventory days from 18 to 9 by the end of CY 20 with enhanced consumer and sales data. With \$100 million in reserves, it expects a decline in cash burn but requires an additional \$560 million to achieve profitability. Additionally, the company plans a significant IPO in Q4 CY 20.

### *Key Questions to Founders:*

- Q1-Growth stability: What are the driving factors for income growth, and how to ensure that the driving factors can grow stably if the market consumption level declines?
- Q2-Customer acquisition and retention: Characteristics of new customers and retained customers (age, consumption preferences, spending power), and why income retention is very low. Have any measures been taken to solve it?
- Q3-Market position and competition: How much can the company's USP low inventory reduce costs, and how much advantage does it have over other similar companies? Are there any other advantages?
- Q4-Cash flow and investment: What is the company's current cash flow position, and what is the expected return on capital expenditure after investment?
- Q5-Product Matrix: What are the advantages or technical layout of the product, and how much room for expansion is there?

## A.3 Financial Forecast and Valuation

### *Quarterly P&L with Gross and EBITDA Margin:*

| Revenue and Operating Cost | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
| Revenue | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Gross Revenue | [\$mn] | 24.00 | 72.40 | 117.16 | 155.02 | 198.60 | 254.02 | 319.72 | 397.86 | 714.54 | 919.06 | 1158.40 | 1460.95 | 1828.36 | 2215.69 | 2658.48 | 3079.84 |
| *Revenue from new customers* | [\$mn] | 24.00 | 70.00 | 108.00 | 136.00 | 168.00 | 210.00 | 260.00 | 320.00 | 616.00 | 774.40 | 958.32 | 1194.71 | 1481.67 | 1771.56 | 2104.61 | 2400.82 |
| *Revenue from repeat customers* | [\$mn] | 0.00 | 2.40 | 9.16 | 19.02 | 30.60 | 44.02 | 59.72 | 77.86 | 98.54 | 144.66 | 200.08 | 266.25 | 346.69 | 444.12 | 553.87 | 679.02 |
| *Product Returns (%)* | [%] | 0.25 | 0.26 | 0.27 | 0.28 | 0.29 | 0.30 | 0.31 | 0.32 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Net Revenue | [\$mn] | 18.00 | 53.58 | 85.53 | 111.61 | 141.01 | 177.81 | 220.61 | 270.54 | 535.91 | 689.30 | 868.80 | 1095.72 | 1371.27 | 1661.76 | 1993.86 | 2309.88 |
| *Growth (%)* | [%] | 0.00 | 1.98 | 0.60 | 0.31 | 0.26 | 0.26 | 0.24 | 0.23 | 0.98 | 0.29 | 0.26 | 0.26 | 0.25 | 0.21 | 0.20 | 0.16 |
| *Interest Income from investments** | [\$mn] | 0.05 | 0.13 | 0.21 | 0.28 | 0.35 | 0.44 | 0.55 | 0.68 | 0.66 | 0.61 | 0.54 | 0.51 | 0.45 | 0.44 | 0.44 | 0.47 |
| Total Revenue | [\$mn] | 18.05 | 53.71 | 85.74 | 111.89 | 141.36 | 178.26 | 221.16 | 271.22 | 536.56 | 689.91 | 869.34 | 1096.22 | 1371.72 | 1662.20 | 1994.31 | 2310.35 |
| Operating Cost and PAT | | | | | | | | | | | | | | | | | |
| COGS | [\$mn] | 14.40 | 42.86 | 68.42 | 89.29 | 112.80 | 142.25 | 176.49 | 216.44 | 423.36 | 537.65 | 668.98 | 832.74 | 1028.45 | 1229.71 | 1455.52 | 1663.11 |
| *Logistics* | [\$mn] | 2.52 | 7.57 | 12.18 | 16.04 | 20.46 | 26.04 | 32.61 | 40.38 | 70.74 | 88.69 | 108.89 | 133.68 | 162.72 | 191.66 | 186.09 | 215.59 |
| *Payment Gateway* | [\$mn] | 0.20 | 0.62 | 1.00 | 1.32 | 1.69 | 2.16 | 2.72 | 3.38 | 6.07 | 7.81 | 9.85 | 12.42 | 15.54 | 18.83 | 22.60 | 26.18 |
| *Customer support cost* | [\$mn] | 1.08 | 3.22 | 5.16 | 6.74 | 8.54 | 10.80 | 13.43 | 16.51 | 27.87 | 33.55 | 39.39 | 46.02 | 54.85 | 66.47 | 53.17 | 61.60 |
| *Other direct costs* | [\$mn] | 0.24 | 0.72 | 1.17 | 1.55 | 1.99 | 2.54 | 3.20 | 3.98 | 7.15 | 9.19 | 11.58 | 14.61 | 18.28 | 22.16 | 26.58 | 30.80 |
| EBITDA | [\$mn] | -0.40 | -1.28 | -2.19 | -3.05 | -4.12 | -5.52 | -7.28 | -9.47 | 1.37 | 13.02 | 30.66 | 56.75 | 91.86 | 133.38 | 250.34 | 313.08 |
| *Gross Margin* | (%) | -0.02 | -0.02 | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 | 0.00 | 0.02 | 0.04 | 0.05 | 0.07 | 0.08 | 0.13 | 0.14 |
| *Marketing spend* | [\$mn] | 3.00 | 7.00 | 12.00 | 17.00 | 28.00 | 35.00 | 52.00 | 80.00 | 88.00 | 96.80 | 106.48 | 117.13 | 128.84 | 141.72 | 155.90 | 171.49 |
| *G&A* | [\$mn] | 10.00 | 11.50 | 13.23 | 15.21 | 17.49 | 20.11 | 23.13 | 26.60 | 28.46 | 30.45 | 32.59 | 34.87 | 37.31 | 39.92 | 42.71 | 45.70 |
| PBT | | -13.40 | -19.78 | -27.41 | -35.26 | -49.61 | -60.64 | -82.41 | -116.07 | -115.09 | -114.23 | -108.41 | -95.24 | -74.29 | -48.26 | 51.73 | 95.89 |
| *Interest Expense (No Debt)* | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| EBIT | | -13.40 | -19.78 | -27.41 | -35.26 | -49.61 | -60.64 | -82.41 | -116.07 | -115.09 | -114.23 | -108.41 | -95.24 | -74.29 | -48.26 | 51.73 | 95.89 |
| *Tax (@ 15%)* | [\$mn] | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.76 | 14.38 |
| PAT | [\$mn] | -13.40 | -19.78 | -27.41 | -35.26 | -49.61 | -60.64 | -82.41 | -116.07 | -115.09 | -114.23 | -108.41 | -95.24 | -74.29 | -48.26 | 43.97 | 81.50 |
| Profit and Loss | [\$mn] | -13.40 | -19.78 | -27.41 | -35.26 | -49.61 | -60.64 | -82.41 | -116.07 | -115.09 | -114.23 | -108.41 | -95.24 | -74.29 | -48.26 | 43.97 | 81.50 |

*Excel Sheet: P&L and Margins*

As ZN has not debt, it has no debt interest and interest tax shield. Therefore, the profit and loss for the company equals to the PAT (profit after tax).

## Working Capital Projection

| Working Capital Forecast Model | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
| Working Capital and Other | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| % of Net Revenue of COGS | | | | | | | | | | | | | | | | | |
| Net Revenue | [$mn] | 18.00 | 53.58 | 85.53 | 111.61 | 141.01 | 177.81 | 220.61 | 270.54 | 535.91 | 689.30 | 868.80 | 1095.72 | 1371.27 | 1661.76 | 1993.86 | 2309.88 |
| COGS | [$mn] | 14.40 | 42.86 | 68.42 | 89.29 | 112.80 | 142.25 | 176.49 | 216.44 | 423.36 | 537.65 | 668.98 | 832.74 | 1028.45 | 1229.71 | 1455.52 | 1663.11 |
| Inventory Days | [#] | 25.00 | 24.00 | 23.00 | 22.00 | 21.00 | 20.00 | 19.00 | 18.00 | 14.00 | 13.00 | 12.00 | 11.00 | 10.00 | 9.00 | 9.00 | 9.00 |
| Inventory Turnover | [#] | 14.60 | 15.21 | 15.87 | 16.59 | 17.38 | 18.25 | 19.21 | 20.28 | 26.07 | 28.08 | 30.42 | 33.18 | 36.50 | 40.56 | 40.56 | 40.56 |
| Receivale Days | [#] | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 | 4.00 |
| Receivale Turnover | [#] | 73.00 | 73.00 | 73.00 | 73.00 | 73.00 | 73.00 | 73.00 | 73.00 | 91.25 | 91.25 | 91.25 | 91.25 | 91.25 | 91.25 | 91.25 | 91.25 |
| Payable Days | [#] | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 | 7.00 |
| Payable Turnover | [#] | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 | 52.14 |
| Inventory | [$mn] | 0.99 | 2.82 | 4.31 | 5.38 | 6.49 | 7.79 | 9.19 | 10.67 | 16.24 | 19.15 | 21.99 | 25.10 | 28.18 | 30.32 | 35.89 | 41.01 |
| Receivale | [$mn] | 0.25 | 0.73 | 1.17 | 1.53 | 1.93 | 2.44 | 3.02 | 3.71 | 5.87 | 7.55 | 9.52 | 12.01 | 15.03 | 18.21 | 21.85 | 25.31 |
| Payable | [$mn] | 0.33 | 0.98 | 1.56 | 2.05 | 2.59 | 3.27 | 4.06 | 4.99 | 9.59 | 12.16 | 15.11 | 18.77 | 23.14 | 27.62 | 31.92 | 36.53 |
| Net Working Capital | [$mn] | 0.90 | 2.57 | 3.92 | 4.87 | 5.83 | 6.96 | 8.15 | 9.39 | 12.52 | 14.54 | 16.41 | 18.33 | 20.06 | 20.91 | 25.82 | 29.79 |
| Net Working Capital as % of Net Sales | [%] | 5.02% | 4.80% | 4.58% | 4.36% | 4.14% | 3.92% | 3.69% | 3.47% | 2.34% | 2.11% | 1.89% | 1.67% | 1.46% | 1.26% | 1.30% | 1.29% |

*Excel Sheet: Working Capital Forecast Model*

To estimate the free cash flow, we need to estimate the working capital and working capital ratio first. We induce inventory turnover, receivable turnover and payable turnover to compute the implied inventory, receivable and payable amount for each quarter. Consequent we could have net working capital and NWC as percentage of net sales to be the working capital ratio.

## Capital Expenditure and Depreciation Projection

| Capital Expenditures & Capital Assets Forecast Model | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | CY 2019 E | | | | CY 2020 E | | | |
| 1) Addition of Capital Asset | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Additions (Revenue from New Customers) | [$mn] | 616.00 | 774.40 | 958.32 | 1194.71 | 1481.67 | 1771.56 | 2104.61 | 2400.82 |
| *Estimated Depreciation as % of Additions (@ 1.25%)* | [%] | 1.25% | 1.25% | 1.25% | 1.25% | 1.25% | 1.25% | 1.25% | 1.25% |
| Total Estimated Depreciation | [$mn] | 7.70 | 9.68 | 11.98 | 14.93 | 18.52 | 22.14 | 26.31 | 30.01 |
| | | | | | | | | | |
| 2) Esitimated Capital Expenditure | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Investment for Equipment, Property | [$mn] | 3.08 | 3.87 | 4.79 | 5.97 | 7.41 | 8.86 | 10.52 | 12.00 |
| *Estimated CAPX in Tangible Asset as % of Additions* | [%] | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% | 0.50% |
| Investment for Intellectual Property, Patents and Tech | [$mn] | 21.56 | 27.10 | 33.54 | 41.81 | 51.86 | 62.00 | 73.66 | 84.03 |
| *Estimated CAPX in Intangible Asset as % of Additions ()* | [%] | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% | 3.50% |
| Total Capital Expenditure for Tangible and Intangible Assets | [$mn] | 24.64 | 30.98 | 38.33 | 47.79 | 59.27 | 70.86 | 84.18 | 96.03 |

*Excel Sheet: CAPX & Depreciation Forecast*

To estimate the free cash flow, we also need the data of capital expenditure and depreciation. Initially, we have the addition of capital asset (revenue from the new customers) as the capital asset. As the company stands in e-tailer industry, we projected a low depreciation rate as 1.25% of the additions compare to offline retail. However, e-tailer must also have depreciation account as they still need land for inventory or equipment for logistics. As stated in company's BP, the further investment will be used in marketing and technology. We considered the marketing expense in income statement, and will not take it into account here. Hence, we may assume the CAPX would include investment in tangible asset like property (inventory house), logistics equipment as well as web server/gateway and intangible asset like AI algorithm, intellectual property and technology layout.

## *Free Cash Flow for the Firm Estimation*

| Revenue and Operating Cost | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
| Accounting NOPAT | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| PAT | [$mn] | -13.40 | -19.78 | -27.41 | -35.26 | -49.61 | -60.64 | -82.41 | -116.07 | -115.09 | -114.23 | -108.41 | -95.24 | -74.29 | -48.26 | 43.97 | 81.50 |
| | | | | | | | | | | | | | | | | | |
| Cash NOPAT and Free Cash Flow | | | | | | | | | | | | | | | | | |
| Inc Working Capital | [$mn] | 0.00 | 1.71 | 1.47 | 1.14 | 1.22 | 1.44 | 1.58 | 1.74 | 6.20 | 3.23 | 3.39 | 3.80 | 4.03 | 3.66 | 4.30 | 4.08 |
| *Working Capital Ratio* | [%] | 0.05 | 0.05 | 0.05 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 |
| Cash NOPAT | [$mn] | -13.40 | -21.49 | -28.88 | -36.40 | -50.83 | -62.08 | -84.00 | -117.81 | -121.29 | -117.47 | -111.80 | -99.04 | -78.32 | -51.92 | 39.67 | 77.43 |
| *Capital Expenditure (-)* | [$mn] | | | | | | | | | 24.64 | 30.98 | 38.33 | 47.79 | 59.27 | 70.86 | 84.18 | 96.03 |
| *Depreciation (+)* | [$mn] | | | | | | | | | 7.7 | 9.68 | 11.98 | 14.93 | 18.52 | 22.14 | 26.31 | 30.01 |
| NCF | [$mn] | -13.4 | -21.49 | -28.88 | -36.40 | -50.83 | -62.08 | -84.00 | -117.81 | -138.23 | -138.76 | -138.15 | -131.89 | -119.06 | -100.64 | -18.21 | 11.41 |

*Excel Sheet: Cash Flow Forecast Model*

With the projection of working capital, capital expenditure and depreciation, we could calculate the free cash flow for the firm then. Starting from accounting NOPAT (PAT), we get cash NOPAT by deducting change in working capital, and the get NCF by minus CAPX and plus depreciation.

WACC Calculation

| WACC Calculation | | |
|---|---|---|
| Benchmark Rate | 2.91% | 10-Year Treasury - Historical Annual Yield Data (2018 |
| Market Risk Premium | 5.89% | 10-Year Average Risk Premium (US) (2009 - 2018) |
| Market Size Premium | 4.27% | 10-Year Average Size Premium (US) (2009 - 2018) |
| Beta | 1.25 | Retail (General) - Beta by Sector (US) - Capital IQ |
| **CAPM Cost Of Equity** | **14.54%** | |
| Cost of debt | 5.2% | Interest on Debt (US) (2018) - Capital IQ |
| **After Tax Cost Of Debt** | **12.4%** | |
| Leverage Level | 0.0% | |
| **WACC** | **14.54%** | |
| **Growth** | **13.25%** | |

*Excel Sheet: DCF Valuation Output*

With extracted historical data from Capital IQ, we can compute the annual CAPM cost of equity to be 14.54%. Meanwhile, as the firm has no debt, the leverage ratio is zero, and the WACC is equal to the cost of equity, which is 14.54% annually. As the company has a very high growth rate with quarterly growth more than 16%, we project the growth to be 13.25% annually in perpetuity.

Discount Cash Flow

| Free Cashflow Valuation | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Projected Fiscal Year Ending Dce 31 | | | | | | | | |
| **Free Cash Flows** | 2017 Q1 | 2017 Q2 | 2017 Q3 | 2017 Q4 | 2018 Q1 | 2018 Q2 | 2018 Q3 | 2018 Q4 | 2019 Q1 | 2019 Q2 | 2019 Q3 | 2019 Q4 | 2020 Q1 | 2020 Q2 | 2020 Q3 | 2020 Q4 | Perp (Projected) |
| **Net Sales** | **18.05** | **53.71** | **85.74** | **111.89** | **141.36** | **178.26** | **221.16** | **271.22** | **536.56** | **689.91** | **869.34** | **1,096.22** | **1,371.72** | **1,662.20** | **1,994.31** | **2,310.35** | 2,386.88 |
| Total Cost of Sales | 14.40 | 42.86 | 68.42 | 89.29 | 112.80 | 142.25 | 176.49 | 216.44 | 423.36 | 537.65 | 668.98 | 832.74 | 1,028.45 | 1,229.71 | 1,455.52 | 1,663.11 | |
| Total Operating Expenses | 4.04 | 12.13 | 19.51 | 25.66 | 32.67 | 41.53 | 51.95 | 64.25 | 111.83 | 139.24 | 169.71 | 206.72 | 251.40 | 299.12 | 288.45 | 334.16 | |
| **Adjusted EBITDA** | | | | | | | | | **1.37** | **13.02** | **30.66** | **56.75** | **91.86** | **133.38** | **250.34** | **313.08** | 323.45 |
| Marketing Expense, G&A | | | | | | | | | 116.46 | 127.25 | 139.07 | 152.00 | 166.15 | 181.64 | 198.61 | 217.19 | |
| **Adjusted EBIT** | | | | | | | | | **(115.09)** | **(114.23)** | **(108.41)** | **(95.24)** | **(74.29)** | **(48.26)** | **51.73** | **95.89** | 99.06 |
| Less: Tax (EBIT * Tax Rate) | | | | | | | | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 7.76 | 14.38 | 14.86 |
| Less: Capital Expenditures | | | | | | | | | 24.64 | 30.98 | 38.33 | 47.79 | 59.27 | 70.86 | 84.18 | 96.03 | |
| Depreciation, amortization and impairment | | | | | | | | | 7.70 | 9.68 | 11.98 | 14.93 | 18.52 | 22.14 | 26.31 | 30.01 | |
| Change in working capital and other (cashflow statement) | | | | | | | | | 6.20 | 3.23 | 3.39 | 3.80 | 4.03 | 3.66 | 4.30 | 4.08 | 0.99 |
| **Free cash flows to the firm (FCFF)** | | | | | | | | | (138.23) | (138.76) | (138.15) | (131.89) | (119.06) | (100.64) | (18.21) | 11.41 | 6,438.43 |
| *Years to discount* | | | | | | | | | 0.25 | 0.50 | 0.75 | 1.00 | 1.25 | 1.50 | 1.75 | 2.00 | |
| *Cost of capital* | | | | | | | | | 13.25% | 13.25% | 13.25% | 13.25% | 13.25% | 13.25% | 13.25% | 13.25% | |
| *Discount factor* | | | | | | | | | 0.97 | 0.94 | 0.91 | 0.88 | 0.86 | 0.83 | 0.80 | 0.78 | |
| **PV Free Cash Flows to the Firm (FCFF)** | | | | | | | | | (134.00) | (130.39) | (125.84) | (116.46) | (101.91) | (83.50) | (14.64) | 8.89 | 5,020.00 |

*Excel Sheet: DCF Valuation Output*

With the calculated WACC and assigned growth, we can discount firm's NCF. Note that the estimated cash flow and growth are in quarterly frequency, so we adopt arithmetic method rather than geometric method to convert the quarterly data into annually discounted data. After that, we have the present value of the cash flow for each year.

## *Conclusion and Valuation Output*

| Valuation Output | |
|---|---|
| SUM PV NCFs | (697.86) |
| Terminal Value | 6438.43 |
| PV Term Value | 5020.00 |
| PV All Cash Fls | 4322.14 |
| Cash + | 100.00 |
| LT Debt - | 0.00 |
| Legal Liability - | 0.00 |
| **Intrinsic Equity** | **4422.14** |
| Merger Offer | 800 for 20% Equiy |
| **Implied Equity** | **4000.00** |

*Excel Sheet: DCF Valuation Output*

Based on the DCF valuation, the firm's total equity is 4422.14 million USD. However, the transaction implied equity value (800 million for 20% equity) is 4000.00 million USD, which is less than the DCF intrinsic value of 4422.14 million. **Therefore, we should invest in the company**, as intrinsic value is greater than the transaction implied value, we will gain a positive NPV of 422.14 million USD**.**

## A.4 Revenue Estimation when Doubling Marketing Expense

Original Scenario

| Marketing Metrics | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Revenue from New Custome | US$ M | 24 | 70 | 108 | 136 | 168 | 210 | 260 | 320 | 616 | 774 | 958 | 1,195 | 1,482 | 1,772 | 2,105 | 2,401 |
| Marketing spend (B) | US$ M | 3 | 7 | 12 | 17 | 28 | 35 | 52 | 80 | 88 | 97 | 106 | 117 | 129 | 142 | 156 | 171 |
| Marketing Eff (A/B) | # | 8.0 | 10.0 | 9.0 | 8.0 | 6.0 | 6.0 | 5.0 | 4.0 | 7.0 | 8.0 | 9.0 | 10.2 | 11.5 | 12.5 | 13.5 | 14.0 |
| Revenue Retention | % | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% |
| Revenue | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Revenue Retention | | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% |
| | Q1 | 24 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | | | | | | | | |
| | Q2 | | 70 | 7 | 6 | 6 | 5 | 4 | 3 | 2 | | | | | | | |
| | Q3 | | | 108 | 11 | 10 | 9 | 8 | 6 | 4 | 3 | | | | | | |
| | Q4 | | | | 136 | 14 | 12 | 11 | 10 | 8 | 5 | 4 | | | | | |
| | Q1 | | | | | 168 | 17 | 15 | 13 | 12 | 10 | 7 | 5 | | | | |
| | Q2 | | | | | | 210 | 21 | 19 | 17 | 15 | 13 | 8 | 6 | | | |
| | Q3 | | | | | | | 260 | 26 | 23 | 21 | 18 | 16 | 10 | 8 | | |
| | Q4 | | | | | | | | 320 | 32 | 29 | 26 | 22 | 19 | 13 | 10 | |
| | Q1 | | | | | | | | | 616 | 62 | 55 | 49 | 43 | 37 | 25 | 18 |
| | Q2 | | | | | | | | | | 774 | 77 | 70 | 62 | 54 | 46 | 31 |
| | Q3 | | | | | | | | | | | 958 | 96 | 86 | 77 | 67 | 57 |
| | Q4 | | | | | | | | | | | | 1,195 | 119 | 108 | 96 | 84 |
| | Q1 | | | | | | | | | | | | | 1,482 | 148 | 133 | 119 |
| | Q2 | | | | | | | | | | | | | | 1,772 | 177 | 159 |
| | Q3 | | | | | | | | | | | | | | | 2,105 | 210 |
| | Q4 | | | | | | | | | | | | | | | | 2,401 |
| | Total | 24 | 72 | 117 | 155 | 199 | 254 | 320 | 398 | 715 | 919 | 1,158 | 1,461 | 1,828 | 2,216 | 2,658 | 3,080 |

*Excel Sheet: ZADNA*

Double the Marketing Expense

| Marketing Metrics | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Revenue from New Custome | US$ M | 24 | 70 | 108 | 136 | 168 | 210 | 260 | 320 | 1,232 | 1,549 | 1,917 | 2,389 | 2,963 | 3,543 | 4,209 | 4,802 |
| Marketing spend (B) | US$ M | 3 | 7 | 12 | 17 | 28 | 35 | 52 | 80 | 176 | 194 | 213 | 234 | 258 | 283 | 312 | 343 |
| Marketing Eff (A/B) | # | 8.0 | 10.0 | 9.0 | 8.0 | 6.0 | 6.0 | 5.0 | 4.0 | 7.0 | 8.0 | 9.0 | 10.2 | 11.5 | 12.5 | 13.5 | 14.0 |
| Revenue Retention | % | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% |
| Revenue | | CY 2017 A | | | | CY 2018 A | | | | CY 2019 E | | | | CY 2020 E | | | |
| | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Revenue Retention | | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% | 100% | 10% | 9% | 8% | 7% | 6% | 4% | 3% |
| | Q1 | 24 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | | | | | | | | |
| | Q2 | | 70 | 7 | 6 | 6 | 5 | 4 | 3 | 2 | | | | | | | |
| | Q3 | | | 108 | 11 | 10 | 9 | 8 | 6 | 4 | 3 | | | | | | |
| | Q4 | | | | 136 | 14 | 12 | 11 | 10 | 8 | 5 | 4 | | | | | |
| | Q1 | | | | | 168 | 17 | 15 | 13 | 12 | 10 | 7 | 5 | | | | |
| | Q2 | | | | | | 210 | 21 | 19 | 17 | 15 | 13 | 8 | 6 | | | |
| | Q3 | | | | | | | 260 | 26 | 23 | 21 | 18 | 16 | 10 | 8 | | |
| | Q4 | | | | | | | | 320 | 32 | 29 | 26 | 22 | 19 | 13 | 10 | |
| | Q1 | | | | | | | | | 1,232 | 123 | 111 | 99 | 86 | 74 | 49 | 37 |
| | Q2 | | | | | | | | | | 1,549 | 155 | 139 | 124 | 108 | 93 | 62 |
| | Q3 | | | | | | | | | | | 1,917 | 192 | 172 | 153 | 134 | 115 |
| | Q4 | | | | | | | | | | | | 2,389 | 239 | 215 | 191 | 167 |
| | Q1 | | | | | | | | | | | | | 2,963 | 296 | 267 | 237 |
| | Q2 | | | | | | | | | | | | | | 3,543 | 354 | 319 |
| | Q3 | | | | | | | | | | | | | | | 4,209 | 421 |
| | Q4 | | | | | | | | | | | | | | | | 4,802 |
| | Total | 24 | 72 | 117 | 155 | 199 | 254 | 320 | 398 | 1,331 | 1,755 | 2,250 | 2,870 | 3,621 | 4,411 | 5,307 | 6,160 |

*Excel Sheet: ZADNA*

If we assume the marketing effect (A/B) in the original scenario constant, we can see a significant growth in revenue retention from 3,080 to 6,160 when doubling the marketing expense. Therefore, we should **support** the proposed strategy to double the marketing expense.

## B-1. Term Sheet Negotiation

- Valuation and Investment Amount: Determining the valuation of ZN and specifying the amount of investment for the agreed-upon ownership stake. Meanwhile, determine the deal structure.
- Governance and Board Representation: Addressing governance structure, including the number of board seats allocated to the investor and any decision-making rights associated with the investment.
- Strategic Alignment and Rights: Clarifying strategic objectives and outlining any specific rights or privileges granted to the investor, such as veto rights on certain strategic decisions or access to proprietary technology.
- Exit Strategy: Defining exit options for both the investor and the company, including provisions for an IPO, acquisition, or other liquidity events, as well as any rights of first refusal or drag-along/tag-along provisions.
- Investor Protections and Risk Mitigation: Incorporating provisions to protect the investor's interests, such as anti-dilution protection, liquidation preferences, and rights in the event of a change of control or major corporate event.

## B-2. Cap-table and Post-money Valuation after the Transaction

### *Post-Money Valuation*

Total investment: $1 billion (Alibaba's $800 million + Investor Y & Z's $200 million)

Post-money valuation: Pre-money valuation + Total investment

= $2.5 billion + $1 billion

= $3.5 billion

### *Cap Table*

**ZN - Cap Table**

**Series i Investment**

| | Shares | | | | |
|---|---|---|---|---|---|
| **Investor** | **Common (Pre-Investment)** | **% Ownership (pre)** | **Series i Investment** | **Total Shares** | **% Ownership (post)** |
| Founder 1 | 125 | 5.00% | | 125 | 3.57% |
| Founder 2 | 200 | 8.00% | | 200 | 5.72% |
| Founder 3 | 300 | 12.00% | | 300 | 8.57% |
| Shareholder X | 250 | 10.00% | | 250 | 7.15% |
| Shareholder Y | 625 | 25.00% | 100 | 725 | 20.72% |
| Shareholder Z | 1,000 | 40.00% | 100 | 1,100 | 31.44% |
| Alibaba | | | 800 | 800 | 22.86% |
| **Total Value** | **2,500** | **100%** | **1,000** | **3,500** | **100%** |
| % Total | 71.4% | | 28.6% | | |

*Excel Sheet: Cap Table*

## B-3. Proposed Position and Reasons Behind

### *a. Founder's Proposal: Right to Force Sale of Stake in Change of Control Transaction*

- Position: Not reasonable or acceptable.
- Reason: While founders may seek flexibility, granting them the right to force the sale of the investor's stake in a change of control transaction can significantly diminish investor confidence and control over their investment. Investors typically prefer to have a say in such transactions to ensure alignment of interests and protection of their investment.

*b. Founder's Proposal: Weighted Average Broad Based Anti-dilution Clause*

- Position: Reasonable and acceptable.
- Reason: Both full ratchet and weighted average anti-dilution clauses aim to protect investors from dilution in subsequent financing rounds. While full ratchet can be more favorable to investors, it may be perceived as punitive to the company and existing shareholders. A weighted average clause strikes a balance between protecting investors and not overly penalizing the company's valuation.

*c. Founder's Proposal: Carve-out of ESOP Shares from Pre-emptive Rights*

- Position: Reasonable and acceptable.
- Reason: It is common for ESOP shares to be carved out from pre-emptive rights to facilitate employee stock ownership plans without unduly restricting the company's ability to raise capital. This provision allows the company to issue ESOP shares as needed for employee incentives without requiring existing shareholders to participate in every issuance.

*d. Founder's Proposal: Right of First Notice for Alibaba in Sale of Secondary Shares*

- Position: Reasonable, but requires clarification.
- Reason: Granting Alibaba the right of first notice in the event of a sale of secondary shares can provide transparency and allow Alibaba to evaluate its options. However, the mechanism should be clearly defined to ensure fairness and compliance with legal and regulatory requirements.

*e. Founder's Proposal: Number of New Board Seats*

- Position: Depends on ownership and strategic considerations.
- Reason: The number of new board seats should reflect Alibaba's ownership stake and strategic importance in the company. If Alibaba's ownership justifies additional board representation, granting three new seats may be reasonable. However, if aligning with Alibaba's ownership percentage is deemed appropriate, two new seats could suffice.

*f. Founder's Proposal: Carve-out for Competitors' List in Business Cooperation Restrictions*

- Position: Reasonable with certain limitations.
- Reason: While it's reasonable to restrict business cooperation with competitors of Alibaba, it's also essential to acknowledge areas where Alibaba does not operate actively. However, the carve-out should be carefully defined to ensure that it does not inadvertently facilitate actions detrimental to Alibaba's interests or create conflicts of interest.

## C-1. Offer to the Founders as a Package

Founder's Proposal: Right to Force Sale of Stake in Change of Control Transaction:

- Offer: Provide founders with a reasonable threshold (e.g., minimum ownership percentage) where they can have the right to force sale in a change of control transaction, subject to approval by a majority of non-founder shareholders to ensure fairness and investor protection.

Founder's Proposal: Weighted Average Broad Based Anti-dilution Clause:

- Offer: Accept the founder's proposal for a weighted average broad based anti-dilution clause, as it strikes a balance between protecting investors and not overly penalizing the company's valuation.

Founder's Proposal: Carve-out of ESOP Shares from Pre-emptive Rights:
- Offer: Accept the founder's proposal to carve out ESOP shares from pre-emptive rights, allowing the company flexibility in issuing ESOP shares without unduly restricting capital raising activities.

Founder's Proposal: Right of First Notice for Alibaba in Sale of Secondary Shares:
- Offer: Grant Alibaba the right of first refusal rather than just the right of first notice. This would allow Alibaba the opportunity to match any offer made by another potential buyer for the secondary shares, providing Alibaba with more control over its ownership structure.

Founder's Proposal: Number of New Board Seats:
- Offer: Propose adding two new board seats as suggested by the founders, aligned with Alibaba's ownership percentage. However, ensure that Alibaba has significant input in the selection process for these new board members to maintain alignment with Alibaba's strategic interests.

Founder's Proposal: Carve-out for Competitors' List in Business Cooperation Restrictions:
- Offer: Accept the founder's proposal for a carve-out in areas where Alibaba does not actively operate, such as ride-sharing in Africa. However, clarify and define the scope of this carve-out to ensure it does not undermine Alibaba's interests or lead to potential conflicts of interest.

# Appendix

## 1. Explanation on Modeling Color Set

| *Legend for Color Coding [mainly applies to DCF & pages]* | |
|---|---|
| - Assumptions to be filled in | [ Blank ] |
| - Formulas to be filled in | [ Blank ] |
| - Assumptions are placeholders and should be changed based on discretion | Blue Text |
| - Assumptions that should be linked to scenario choosers | Orange Text |
| - Inputs or historical figures provided [do not change] | Blue Text |
| - Formulas provided | Black Text |
| - Formulas provided | Black Text |

## 2. Data Source in WACC Calculation

*[1] Wharton Research Data Services (WRDS) - Capital IQ*

*[2] NYU Stern Aswath Damodaran*

*[3] Yahoo Finance*