

## **Shaldor Practice Cases Kit – 2017**

### **PipeLines Inc.**

PipeLines, a local company, active in the water and sewage infrastructure industry, manufactures and sells pipes, as well as fittings. The company sells to two main types of customers: businesses (where it sells steel pipes to civil infrastructure companies) and private homes (where it sells small plastic pipes for domestic use). In 2013, the company reported an annual income of \$230M.

The company is mostly active in the local market, characterized by a constant demand for infrastructure materials (assume 4% annual growth). PipeLines has a steady ~90% market share in the local market for large diameter steel pipes (Diameter > 300mm) and is the leading player in the market. The other local manufacturer, SteelWorks, has a ~30% market share of the entire steel pipes market and no other means of income.

In the plastic pipes market, business isn't as bright. There are 5 local manufacturers, in addition to 7 wholesalers who import plastic pipes from China. There is no distinct leader among this group of companies. In 2013, 130,000 KM of plastic pipes were sold in the local market.

International activities, which mainly constitute the export of plastic pipes to Eastern Europe, account for less than 10% of PipeLines' total activity.

In recent years, the financial results of the company have deteriorated: costs have increased while revenues remained the same. Labor costs for skilled plastics workers has tripled and stand at \$1.5 per Meter per employee. The company's CEO has engaged with us to assist her in stabilizing the business by carrying out a turn-around move that will enable the company to get back on track within 3 years.

The CEO has presented us with 3 alternatives she and her team have come up with:

1. Build a manufacturing plant in Poland, their #1 export destination
2. Buy out SteelWorks, their top competitor which is struggling at the moment
3. Shut down the small diameter plastic pipes manufacturing line

Of the three, which would you recommend the CEO act on? The recommendation needs to include solid financial calculations, as well as any other relevant considerations you wish to bring up.

Additional data to consider:

1. International shipping rates for containers are \$125/cu.ft.  
The company uses only 20ft. containers which hold 1,164 cu.ft. each.
2. SteelWorks' manufacturing plant is half the size of the PipeLines' plant and they're the #2 supplier of steel pipes in Israel.
3. PipeLines does not import anything except raw materials.
4. Plastics prices correlates with oil prices, the latter suffered a major depreciation in 2010 and have not recuperated since.
5. Market price for 1 Meter of steel pipe is \$100-\$500, depending on the diameter.  
Market price for 1 Meter of plastic pipe is \$3-\$5, depending on the diameter.

**Continue to next page only after solving the case**

## **Solving the Business Case**

Business cases are very complex and as such they can be tackled in more than one way and from various angles. There is no “textbook answer”, so concentrate on understanding what’s required to answer the case and ‘pan the gold’ from the ‘sand’ of facts.

We will, however, offer a few considerations and perspectives for each of the cases that may be relevant to explore when solving such business cases.

*We strongly recommend: Don’t review these considerations until trying to solve the cases by yourself*

## **PipeLines Inc. – A Possible Solution**

1. PipeLines’ export business is less than 10%. We wish to stay focused on what the CEO has asked us - to turn around profits, so regardless of the effect a new plant in Eastern Europe will have on the costs side, it will be irrelevant in size. However, if we were seeking to develop new businesses for PipeLines this would be a viable option, but again, that’s not what we’re after.
2. To assess the savings by shutting down the small diameter manufacturing line we need to evaluate the market size. We can use the given **data** for quantity of meters of plastic pipes sold in 2013 as an **anchor** and adjust for growth from 2013 to 2017. To evaluate how much that is in dollars, we need to make an ASSUMPTION regarding the distribution of sold pipes. We can claim that the diameters are sold in equal quantities or try to make a more "down to earth" ASSUMPTION – for example, that small diameter pipes constitute 50% of the market, medium diameter pipes constitute 30%, and large diameter pipes constitute 20%, and then calculate the weighted

average. By multiplying the market size in meters by the average price of pipe per meter, we can obtain the market size in dollars. Given that there is no “distinct leader” in this market, we ASSUME that each player has the same market share:  $100\% / (5 \text{ [local manufacturers]} + 7 \text{ [importers]}) = 8.3\%$  per player (rounded to **8%** for convenience). By estimating the market size and the market share, we can deduce PipeLines’ revenues. Manufacturing costs can be calculated, allowing us to evaluate the profitability with and without the small diameter manufacturing line.

Note: it is sometimes preferable to take an easier-to-use assumption than a more rigorous, "down to earth" one. This depends on the question asked, available time, etc. Make sure what the situation calls for beforehand.

3. To assess the buy-out of SteelWorks, we first need to figure out what the selling price could be. Since we know that SteelWorks only operates in the steel pipes market, one way would be to estimate their size, i.e. value, by taking PipeLines’ revenues in 2013, subtracting their revenues from plastic pipes sales (remember to adjust for growth from 2013 to 2017) and MAKE AN ASSUMPTION regarding their share of the entire market. Another ASSUMPTION would probably be needed to evaluate SteelWorks’. Given that SteelWorks is experiencing difficulties, it’s safe to ASSUME that a reasonable discount could be achieved on the sale, but it’s also perfectly fine not to make this ASSUMPTION.

Moving forward, one possibility could be stating that the current evaluated price is the upside of the sale and adding it to PipeLines’ revenue, then evaluating the total income within 3 years (remember to adjust for growth until 2020).

One thing to consider when weighing this option is **regulation**. The purchase of SteelWorks by PipeLines would probably create a monopoly and the company should prepare accordingly.

Note that ASSUMING all of PipeLines' revenues in Israel come from selling steel pipes is a fair assumption under the circumstances but could be refined further.

Another option could be to try sizing the local market for steel pipes. We urge you to try it and figure out what data is relevant and what ASSUMPTIONS are needed.