CASH OPERATING CYCLES

Business can be said to begin with cash which one gets from investors – equity and creditor. This cash is invested in assets such as inventory, plant & equipment, patents, software, people, rent, prepaid insurance, and the list goes on. Not all the assets are purchased for cash. In particular, inventory is often bought on account. The balance of unpaid bills for inventory received is found in Accounts Payable.

\[
\frac{\text{Cost of goods sold}}{365} = \text{Daily cost of goods sold} = \text{Amount of inventory sold daily}
\]

\[
\frac{\text{Accounts Payable}}{\text{Amount of inventory sold daily}} = \text{Number of days of inventory that has been financed by suppliers}
\]

In a manufacturing company, assets such as raw material inventory are transformed into other assets such as work-in-process, and finally into finished goods where it sits until finally sold.

\[
\frac{\text{Inventory}}{\text{Amount of inventory sold daily}} = \text{Number of days of inventory the company keeps on hand}
\]

Once the inventory is sold, the company has to wait until the customer pays.

\[
\frac{\text{Revenue}}{365} = \text{Daily revenue}
\]

\[
\frac{\text{Accounts Receivable}}{\text{Daily revenue}} = \text{Number of days before cash is received after a sale}
\]

So combining these three facts:

\[
\text{Days financing needed} = \text{Days inventory is held - days supplier finances} + \text{days before customer pays}
\]

Company has Revenue of $1,095,000 million and Cost of Goods Sold of $912,500 million. Accounts Receivable is $180,000; Accounts Payable is $375,000; and Inventory is $500,000.

\[
\begin{align*}
\text{Revenue earned each day} &= \frac{1,095,000}{365} = 3,000 \\
\text{Inventory sold each day} &= \frac{912,500}{365} = 2,500 \\
\text{Inventory on hand} &= \frac{500,000}{2,500} = 200 \text{ days} \\
\text{Inventory financing} &= \frac{375,000}{2,500} = 150 \text{ days} \\
\text{Revenue financed} &= \frac{180,000}{3,000} = 60 \text{ days}
\end{align*}
\]

External financing needed for the business = (200 - 150) + 60 = 110 days