

## 1. Cash Flow KPIs

### Introduction to cash flow KPIs

This chapter looks at cash flow as a KPI. This KPI focus on the cash being generated, specifically how much is being generated and the safety net that it provides to a company. These ratios provide an indication of the financial health and performance of a company.

As we are all aware, profitability is critical to the continued existence of a company. However, through the magic of accounting and transactions that are non-cash based, a business that appears very profitable can actually be at a financial risk. This is the case when a company is generating little cash from profits. If a firm makes a lot of sales on credit for example, it will look profitable but has not actually received cash for the sales. Thus the financial health of a business can be at risk as it attempt to meet its obligations.

Leading and lagging, a commonly practised accounting technique utilized in the process of cash management is an effective way to maintain good financial health. Operating cash flow and its importance to business success and creditors is also explained as well as accounts receivables turnover and accounts payables turnover. A few simple tasks are provided to enable you the reader to calculate the ratios explained. In the end of the section the solutions of the tasks can be found in order to check if the calculations were correct.

**Cash flow**

**KPIs**

## Cash Management/ Leading/ Lagging

### Cash management:

The treasury function of a company amongst others is represented by cash management. One of its main tasks is accomplishing optimal efficiency for receivables, which is cash inflow, as well as payables, which is cash outflow.

When a firm issues an invoice it is reported as a receivable. This is cash earned but yet to be received. The enterprise may have to wait 30, 60 or 90 days for the cash to be received, depending on the terms of the invoice. It is common for a company to report increasing sales, yet still run into a cash crunch because of slow or badly managed receivables. In order to accelerate its receivables and reduce payment float, there are a number of things a firm can do. This include:

- Clarifying billing conditions with clients.
- Using a programmed billing service to bill customers immediately.
- Using electronic payment processing through a bank to control payments.
- Staying on top of collections with an aging receivables analysis.

A company can improve its cash flow by controlling its payables through various means. This include:

- Lower costs and keep more cash working in the enterprise by improving the overall efficiency of the payables process.
- Electronic payment processing.
- Direct payroll deposit and controlled disbursement are payables management solutions. These can streamline and automate the payable function.

The receivables and payables management functions can often be automated by using business banking solutions. Due to the digital age smaller firms have access to the same large-scale cash management technologies used by bigger enterprises. More efficient cash management tools often easily cover the costs that they cause. This allows management the ability to reallocate precious resources to grow the business.

Small business owners typically have less access to affordable credit. Moreover they have a significant amount of upfront costs to manage while waiting for receivables. Because of these challenges, successful management of cash is an essential skill for SME's. Intelligent cash management makes it possible for a company to meet unexpected expenses as well as regular expenses such as payroll distribution.<sup>1</sup>

### Leading and lagging:

In order to gain a business advantage leading (expediting) or lagging (delaying) receipts and payments of cash is an accounting technique. For example a manufacturer has to pay \$1 million on a certain date for imported material. At the same time, the manufacturer receives an export order for \$1 million. The cash inflow from export can be used as cash outflow for imports by delaying the payment for imports or pressing for an early payment by the buyer, or both. Thus the firm could try to escape devaluation risk in import-payment and default risk in export-receipt by



juggling two cash flows. Cash discounts and trade allowances are instruments used to get customers to pay earlier.<sup>2</sup>

## Cash Flow/ Operating Cash Flow

Example of calculation of operating cash flow (direct method):<sup>3</sup>

+ Cash received from customers	+ \$ 1000
- Cash paid for purchases	- \$ 200
- Cash paid to employees	- \$ 100
- Cash paid for interest	- \$ 50
- Cash paid for income taxes	- \$ 50
= Operating cash flow	= \$ 600

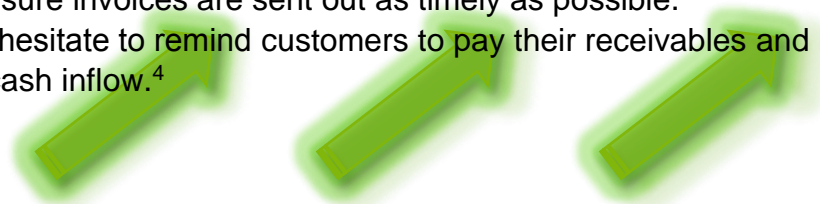
**CASH**  
-  
**FLOW**

Why is it important?

<b>COMPANY</b>	<b>BANK</b>
<ul style="list-style-type: none"> <li>The operating cash flow in the example above is \$600.</li> <li>It informs the company that in a certain accounting period (1 year) an amount of \$600 is generated by the operative business model.</li> <li>This amount can be used for, e.g. for               <ul style="list-style-type: none"> <li>➤ Investments (\$ 250)</li> <li>➤ Paying back loans (\$ 150)</li> <li>➤ Savings (\$ 200)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>One of the most important questions for a banker is: Is a company able to pay back its loans in future periods?</li> <li>In order to find that out a banker will analyse the company's business model.</li> <li>The operative cash flow (\$600) should be at least as high to enable the company to pay for required investments (\$250) and pay back loans (\$150)</li> <li>If this is fulfilled, in most cases the bank will be willing to give a loan to that company for financing further investments.</li> </ul>

How can a company improve the operating cash flow?

- Products and services should be sold only to customers capable of paying.
- Make sure invoices are sent out as timely as possible.
- Don't hesitate to remind customers to pay their receivables and keep control of your cash inflow.<sup>4</sup>



## Accounts Receivables Turnover

Example of calculation of accounts receivables turnover:<sup>5</sup>

$\begin{aligned} &\text{Accounts receivables turnover (3.33)} \\ &= \\ &\frac{\text{Net credit sales (\$ 50)}}{(\text{Beginning accounts receivables (\$ 10) + Ending accounts receivables (\$ 20)})/2} \end{aligned}$
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**RECEIVABLES**

Explanation: The formula expresses the relation between net credit sales in the numerator and the average accounts receivables in the denominator. By adding the beginning accounts receivables and ending accounts receivables and then dividing the sum by 2 you can get the average accounts receivables as a result. The same principle is applied to “Accounts payables turnover” and “Inventory turnover”, explained in subsequent sections.

### Why is it important?

<b>COMPANY</b>	<b>BANK</b>
<ul style="list-style-type: none"> <li>In the example that is shown above the accounts receivables turnover is 3.33 a year.</li> <li>This means that the company collects its receivables about 3.33 times a year.</li> <li>The controller of this company thus could also calculate that receivables are collected once every 110 days (= 365 / 3.3).</li> <li>If the company can collect cash from customers sooner, it will be able to use that cash to pay bills and other obligations (for example short term debt) sooner.<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>Accounts receivables are sometimes posted as collateral for loans.</li> <li>In this case a banker will be highly interested in the quality of receivables.</li> <li>The accounts receivables turnover is an indication of the quality of credit sales and receivables</li> <li>A company with a higher ratio (for example 36.5) shows that receivables are more likely to be collected than a company with a lower ratio (for example 3.3).<sup>7</sup></li> </ul>

### How can a company improve the accounts receivables turnover?

- Be prepared to enact debt collection or legal recourse activities. Don't wait until your client has disappeared and there's no chance of getting paid.<sup>8</sup>
- Set payment terms and/or offer discounts for early payments to motivate your clients to pay fast.



## Accounts Payables Turnover

Example of calculation of accounts payables turnover:<sup>9</sup>

$$\begin{array}{c} \text{Accounts payables turnover (2)} \\ = \\ \frac{\text{Purchases (\$ 100)}}{(\text{Beginning accounts payables (\$ 40) + Ending accounts payables (\$ 60)})/2} \end{array}$$

**PAYABLES**

Why is it important?

<b>COMPANY</b>	<b>BANK</b>
<ul style="list-style-type: none"> <li>• In the example that is shown above the accounts payables turnover is 2 a year.</li> <li>• This means that the company pays its vendors twice a year.</li> <li>• The controller of this company thus could also calculate that vendors are paid back once every 183 days (= 365 /2)</li> <li>• If the turnover ratio is falling from one period to another, that is a sign that the company is taking longer to pay off its suppliers than it was in previous times and vice versa.<sup>10</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Accounts payables turnover is a measure of how well a company pays its bills.</li> <li>• If it is too low a company may be lax in paying its commitments. It may soon be struggling to find the cash to pay the bills and service its debt.</li> <li>• That is why a banker might be worrying about a low accounts payable turnover.</li> <li>• If on the other hand it is very high the company may be unwisely paying too quickly and burning through cash.<sup>11</sup></li> </ul>

How can a company improve the accounts payables turnover?

- Outsourcing payment processing makes it easy to stay on track and avoid late payment fees and disgruntled contractors from calling.
- Many new businesses are not prepared for seasonal sales fluctuations. It is useful to keep adequate cash reserves to pay creditors in slow periods when sales decline. This will avoid bad records on accounts payable turnover.<sup>12</sup>

**TURNOVER**



## Task

Assume you are given the following information on a company:

Cash received from customers	\$ 5000
Cash paid for merchandise	\$ 2000
Cash paid for employees	\$ 1000
Cash paid for interest	\$ 500
Cash paid for income taxes	\$ 200
Cash paid for investments	\$ 2000
Cash paid for loan repayments	\$ 1000
Net credit sales	\$ 4000
Beginning accounts receivables	\$ 2500
Ending accounts receivables	\$ 3500
Purchases	\$ 3000
Beginning accounts payables	\$ 1500
Ending accounts payables	\$ 2500

**TASK**

Please feel free to solve the following questions in order to practice the contents of cash flow key performance indicators:

- 1) Calculate the operating cash flow.
- 2) Calculate the cash flow after investments and loan repayments.
- 3) How could the company increase the operating cash flow so that investments and loan repayments can be paid?
- 4) Calculate accounts receivables turnover.
- 5) Calculate how often receivables are collected by the company (= Days sales outstanding).
- 6) How could the company improve accounts receivables turnover?
- 7) Calculate accounts payables turnover.
- 8) Calculate how often vendors are paid back by the company. (= Days payable outstanding)
- 9) How could the company improve accounts payables turnover?



## Solution

1) Cash received from customers	\$ 5000
- Cash paid for merchandise	\$ 2000
- Cash paid for employees	\$ 1000
- Cash paid for interest	\$ 500
- Cash paid for income taxes	\$ 200
<b>= Operating cash flow</b>	<b>\$ 1300</b>

2) Operating cash flow	\$ 1300
- Cash paid for investments	\$ 2000
- Cash paid for loan repayments	\$ 1000
<b>= Cash flow after investments and loan repayments</b>	<b>\$-1700</b>

3) Products and services should be sold only to customers that can afford to pay, make sure that you are sending out invoices as fast as possible, don't hesitate to remind customers to pay their receivables.

4) **Accounts receivables turnover (1.33)**

=

$$\frac{\text{Net credit sales (\$ 4000)}}{(\text{Beginning accounts receivables (\$ 2500) + Ending accounts receivables (\$ 3500)}) / 2}$$

5) **Days sales outstanding (273.75 days) = 365 days / Accounts receivables turnover (1.33)**

6) Offer online payments, enact legal recourse activities.

7)

**Accounts payables turnover (1.5)**

=

$$\frac{\text{Purchases (\$ 3000)}}{(\text{Beginning accounts payables (\$ 1500) + Ending accounts payables (\$ 2500)}) / 2}$$

8) **Days payable outstanding (243.33 days) = 365 days / Accounts payables turnover (1.5)**

9) Outsource your payment, keep adequate cash reserves to pay creditors after sales decline.

# **SOLUTION**