zebra bi

Working Capital Management

In Times Of COVID-19 Crisis

A comprehensive set of working capital management strategies to overcome the economic threat of Covid-19

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Introduction

In-depth understanding and ongoing focus on working capital management is crucial for companies to stay afloat during the economic crisis triggered by Covid-19.

The Covid-19 pandemic took the world by complete surprise which caused unprecedented levels of disruption and uncertainty for businesses all over the world. Prolonged lockdown along with staff quarantine, supply chain failures, inventory shortages and sudden sharp decreases in sales will leave no industry untouched and provoked multiple challenges across a wide range of sectors.

A number of companies now face weeks, if not months, of exceptionally poor trading conditions. For most, the revenue lost in this period represents a permanent loss rather than a timing difference, and is putting **sudden, unanticipated pressure on liquidity**. Lower revenue will result in less cash flow, along with delayed collection of receivables and growing needs to settle payables with important suppliers.[1]

Although the high exposure applies mostly to companies that are already struggling for profitability, have unstable cash flows or low cash reserves, even businesses that appear to be in good financial shape may not be immune. With divers uncertainties regarding the progress of the whole situation and no clear signs of how long it will take for demand and supply chains to return to normal, it is essential for all companies to **act decisively and start implementing key measures for securing their short-term survival.**

> Revenue is vanity,
> Profit is sanity, but
> Cash is king.

1 Deloitte (2020). Addressing the financial impact of COVID-19 - Liquidity

Definition of Working Capital

Working capital is a part of operating capital which is used in day-to-day operations. It represents a measure of a company's liquidity, operational efficiency and its short-term financial health.

Under normal business conditions, companies primarily focus on the profit and losses– growing the top line while managing the bottom line. Routine back-office activities such as paying bills and turning receivables into cash are often taken for granted.[2]

However, **a company can be rich with assets and show continuous profitability but may fall short of liquidity** if its assets cannot be readily converted into cash. Positive working capital is required to ensure that a company is able to continue its operations and that it has sufficient funds to repay all upcoming operational expenses as well as its maturing short-term debt.

> In the current abnormal business conditions companies need to urgently shift their focus from the income statement to the balance sheet with a spotlight on working capital.

2 Deloitte (2020). Managing Cash flow during a period of crisis

Components of Working Capital

A business's working capital is equivalent to the amount of cash it can deploy very rapidly, otherwise known as its operating liquidity. It is calculated as the difference between current assets (inventories, accounts receivable, cash, etc.) and current liabilities such as accounts payable. Substantial positive working capital means that a company should have a potential to invest and grow, whereas the **negative working capital could lead into operational troubles** starting by difficulties paying back creditors and in the worst case even by bankruptcy.

Working capital is an amount. There are different factors that determine the amount of working capital needed:

- Whether or not a company needs to have an inventory of goods
- How fast customers pay for goods or services
- How fast the company must pay its suppliers
- The company's growth rate
- The company's profitability
- The company's ability to get financing

Working capital can be increased by profitable business operations, sale of long-term assets, long-term borrowings, capital injections by owners. Inversely, it will decrease from unprofitable business operations, purchasing long-term assets (without long-term financing), repaying long-term debt and distributing dividends to owners.[3]

Current Assets

Current assets are tangible and intangible assets that a company currently owns and can easily turn into cash within one year or one business cycle. Most common categories include cash and cash equivalents, accounts receivable, inventory, highly liquid marketable securities (stocks, bonds, etc.), interest payable and shorter-term prepaid expenses.

Current Liabilities

Current liabilities include all company's obligations, debt and expenses a company expects to pay within one year or one business cycle. Typically, this would comprise of all the regular costs to run the business such as rent, utilities, materials and supplies; interest or principal payments on debt; accounts payable; accrued expenses and liabilities, accrued income taxes and deferred revenue.

Working Capital & Liquidity

Liquidity is having the money to pay the company's obligations when they are due. In other words, it is the company's ability to convert its current assets to cash so that the current liabilities can be paid when they come due. Liquidity is necessary for a company to continue its business operations.

A retailer, distributor or manufacturer may have a large amount of working capital. However, if most of its current

3 Accounting Coach. Working Capital and Liquidity (Explanation)

assets are in slow-moving inventory, the company may not have the liquidity to pay its obligations on the agreed upon due dates. Similarly, if a company is unable to collect its accounts receivable, it may not have the liquidity to pay its obligations.

In contrast, consider a company that sells popular products online and customers pay with bank credit cards or debit cards when they order. Further, the company's suppliers allow the company to pay 60 days after it purchases the products. This company may have very little in working capital, but it may have the liquidity it needs.[4]

> “We were always focused on our profit and loss statement. But cash flow was not a regularly discussed topic. It was as if we were driving along, watching only the speedometer, when in fact we were running out of gas.”
>
> —Michael Dell, founder and CEO, Dell Technologies

Operating Cycle

For proper estimations of the amount of working capital that a company will need to maintain or grow its business it is important to understand a company’s operating cycle. The operating cycle is the average amount of time it takes for the company's cash to be put into the business operations and then make its way back into the company's cash account.

A company with an extremely short operating cycle requires less cash to maintain its operations, and so can still grow while selling at relatively small margins. Conversely, a business may have fat margins and yet still require additional financing to grow at even a modest pace if its operating cycle is unusually long. If a company is a reseller, then the operating cycle does not include any time for production - it is simply the date from the initial cash outlay to the date of cash receipt from the customer.[5]

The following diagram shows the connection between different periods in an operating cycle. For illustration purposes we are showing an operating cycle of 150 days (45+60+45 days).

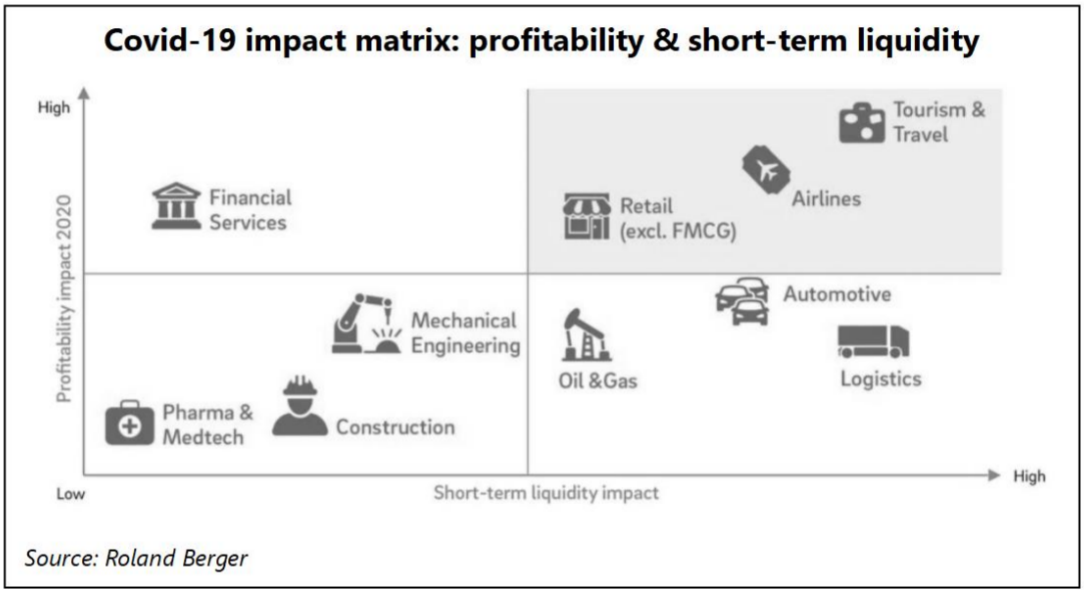
<table>
<tr><th colspan="4">Operating Cycle</th></tr>
<tr><th colspan="3">Inventory Period</th><th>Accounts Receivable Period</th></tr>
<tr><td>← Purchased</td><td>Paid →</td><td>Sold →</td><td>Received →</td></tr>
<tr><th colspan="2">Accounts Payable period</th><th colspan="2">Cash Conversion Cycle</th></tr>
<tr><td colspan="2">45 days</td><td>60 days</td><td>45 days</td></tr>
</table>

4 Accounting Coach. Working Capital and Liquidity (Explanation)
5 Accounting Tools (2019). The operating cycle of a business

Selected industries Impact: *Who will suffer the most?*

There is hardly any business that will come out of this crisis untouched. Moreover, there are several industries that will need to embrace transformation much quicker than they would do organically.

The impact of Covid-19 is spreading across the entire planet in all directions. While there are some industries that have experienced a pleasant boost of their activity due to changes in customer behavior and increased demand, the majority of businesses is facing huge negative effects and serious threats for their survival. According to the Covid-19 impact matrix from the consultancy firm Roland Berger, the most impacted industries regarding profitability and short-term liquidity will be Tourism & Travel, Airlines and Retail (excluding food retail).[6]



We will go through 3 of them with the highest exposure to short-term liquidity and will give some additional insights, examples and potential outcomes.

6. Roland Berger (2020). Immediate Measures For Companies

1) Air Travel: hard landing in a new era

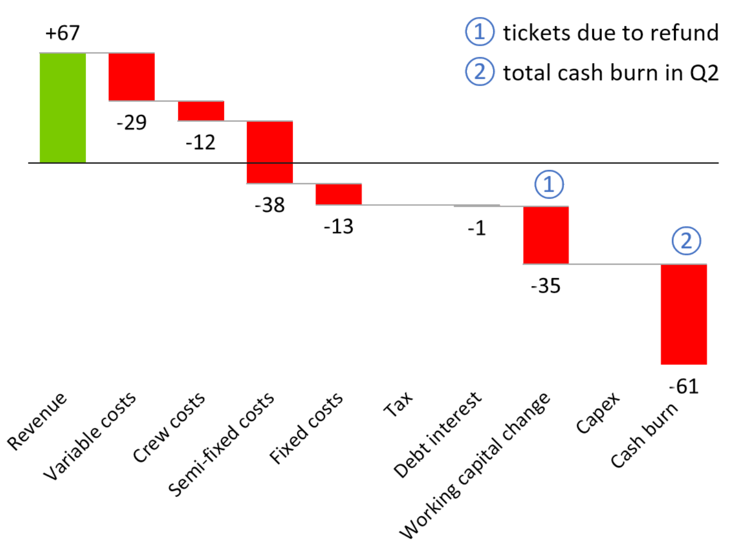
Air transport, especially passenger, including all its eco-system is probably one of the industries that will emerge from the crisis with the most transformations. Higher fares, fewer routes, pre-flight health checks are probably the most certain outcomes that will announce a new era of air travel. Ed Bastian, Delta Air Lines CEO, declared that "We should be prepared for a choppy, sluggish recovery even after the virus is contained, which could take two to three years".

Currently, nearly **two-thirds of the world's 26,000 passenger aircraft are grounded**, and some 25 million jobs are at risk. IATA has warned that carriers face a $314 billion shortfall in ticket sales this year, and half of them face bankruptcy in two to three months without government help.[7]

> "The recovery period could take 2 to 3 years."
>
> —Ed Bastian, Chief Executive Officer of Delta Air Lines

Airlines have significant proportion of fixed and semi-fixed costs which means that even with suspension of flying, costs cannot be avoided. According to IATA, fixed and semi-fixed costs (including crew) represent 49% of total operating costs, with variable costs representing 51%. In addition, airlines face huge working capital liability in form of un-flown tickets due for refunds, estimated to $35 billion. Total negative impact on liquidity in Q2 2020 only is forecasted to $61 billion.[8]

Airline industry cash burn forecast for Q2 2020 (in $bn)



Source: IATA

According to estimations **a typical airline has cash to cover around two months of revenue loss**.[9] Therefore, managing costs and relying on government support is probably the best (and only) bet in the short-term in order to survive.

7. Bloomberg (2020(, How Coronavirus Will Forever Change Airlines and the Way We Fly

8 IATA (2020), Cash burn analysis

9 IATA (2020), Return to air travel expected to be slow

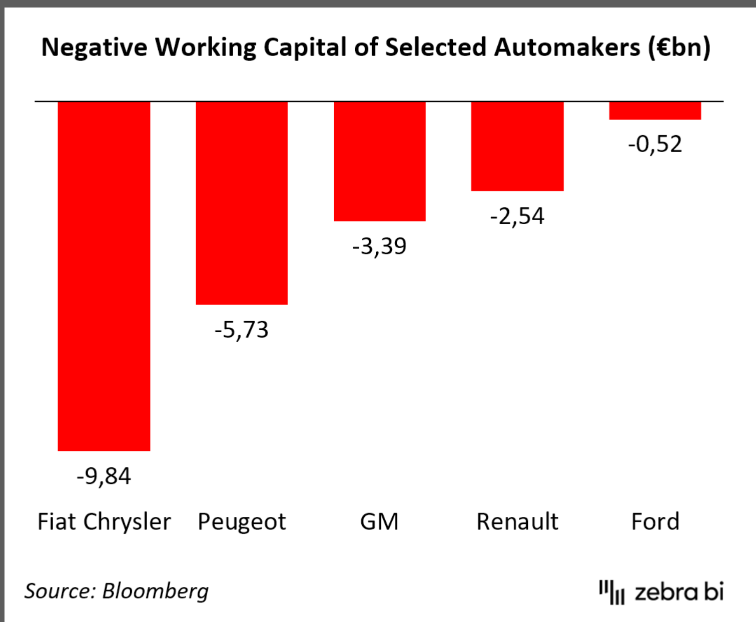
2) Automotive: adding up to existing challenges

Automotive industry has been facing multiple challenges for the last couple of years: from declining sales and changing customer demand to environmental issues and CO2 penalties. The anticipated transformation, referred to by the acronym CASE (Connected, Autonomous, Shared and Electric mobility), will most likely be accelerated by the unprecedented disruption of Covid-19, however it will take its toll; some forecasts predict that it will take as much as 10 years for the Western European market to reach the size of 2019.[10]

Auto industry represents 6,1% of all EU jobs, with nearly 14 million Europeans working in the auto industry.[11] It is estimated that factory shutdowns, triggered by the latest pandemic, have already resulted in lost production amounting to more than 1,5 million motor vehicles in EU alone.[12] Besides factory shutdowns and drop in vehicle demand, the key challenges involve disrupted supply chains and huge liquidity issues.

> "It is clear that this is the worst crisis ever to impact the automotive industry."
>
> —Eric-Mark Huitema, ACEA Director General

AIt is common for car makers to have negative working capital, meaning that they hold little inventory (just-in-time production) and owe more to their suppliers than their customers owe them. When sales is increasing this creates an effective way of financing with additional cash flowing in, whereas when sales suddenly drops, the effect on liquidity is significantly negative as companies still need to pay suppliers, but there is no sufficient cash coming in.



With an industry estimation of less than 2 months of cash burn rate, companies need to explore all possibilities to available borrowing solutions. With prolonged distress a further pressure on consolidation of the sector will emerge.

10 Accenture (2020). Impact on the Automotive Industry: Navigating the Human and Business Impact of COVID-19

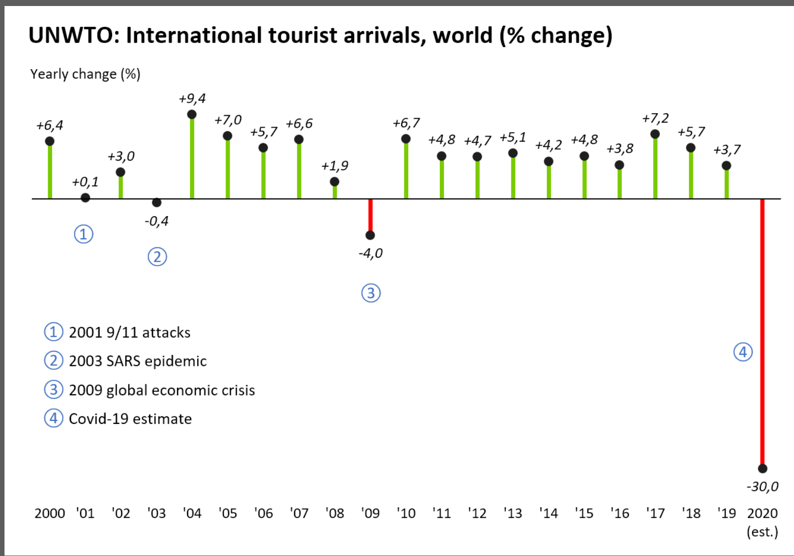
11 ACEA (2020). Coronavirus: EU auto industry faces unprecedented crisis

12 ACEA (2020). Corona crisis: almost 1.5 million vehicles in production losses for European auto makers

3) Hospitality: brutal end of a success story

Perhaps no other industry has been as hard hit by the coronavirus pandemic as has the hospitality sector.

As of mid-April the World Tourism Organization (UNWTO) announced that their forecast predicts a drop by as much as 30% in total international tourist arrivals in 2020, amounting to the same decrease in nominal receipts.[13] With its numerous providers and professions who support it, the industry is in danger of losing 4 million jobs along with $3.5 billion per week.[14] As its recovery bases mainly on people's trust, it may take longer to get back on track that in other sectors.



Similar to automotive industry, many hospitality companies depend on prompt payments of their customers to fund their business. But with no new bookings and missing cash inflow, business need to find the way to increase their short-term liquidity. Beside slashing costs, they need to be creative getting cash on the balance sheets. Bigger players have more alternatives to explore; Hilton recently announced that it had pre-sold $1 billion in cash worth of loyalty points to American Express, a relatively inexpensive source of near-term liquidity for the company.[15]

> "The impact to our industry is already more severe than anything we've seen before, including September 11th and the Great Recession of 2008 combined."
>
> —Chip Rogers, President of the American Hotel & Lodging Association

The downtime should be used for restructure and new opportunities. Technology will play an important role in the transformation in many areas. Replacing staff with online reservation and payment systems is already a reality. Use data analytics for a more flexible business strategy for revenue volatilities and carefully consider customers' behavioral shifts.

13 UNWTO & Data Partners (2020). COVID-19 - a global insight on travel and tourism impacts

14,15 Hospitality.net (2020). Hospitality Sector Should Prepare for an Extended Stay from COVID-19

Top 7 must-follow strategies for efficient working capital management

Even for companies which have not yet been adversely affected, we recommend they seek to improve cash flow by optimizing working capital and identifying strategies to deliver quick, tangible cash flow benefits.

1) Review your operating expenses

With a detailed breakdown of operating expenses, you can quickly identify non-essential expenditures. Reducing variable costs is often a quicker way to immediately impact your cash outflows than focusing on your fixed costs. Besides reduced expenses for travel, meetings and representation, which is most probably already being achieved due to social distancing and safety measures, other typical cost-reduction levers could include hiring freezes, reducing contract labor, placing restrictions on training and entertainment, etc. Encourage employees to take available leave balances to reduce liabilities on the balance sheet. And, if necessary, consider offering voluntary, or even involuntary, leave without pay to preserve cash.[16]

2) Focus on inventory management

Inventory management confronts multiple challenges regarding supply chain disruptions and shortages of raw material, but at the same time deals with balancing the demands for more buffer inventory and managing cash flow. Depending on the business and situation the approaches might be completely adverse, however there are some key levers to release the pressure from working capital:

- Improve end-to-end supply chain inventory visibility
- Minimize order quantities and batch sizes, increase order and production frequency
- Review and challenge existing safety stock policies
- Explore opportunities in consignment stock
- Investigate working with alternative and multiple suppliers
- Dispose of slow moving and obsolete stock by offering discounts
- Bear in mind that significant inventory cuts could have an adverse effect on customer service and production.

3) Accelerate Receivables

It is highly probable that in the event of liquidity issues your customers will start delaying payments to you. An extra focus is therefore required on customer-specific payment performance and early identification of companies that may be changing their payment practices. Make sure that you start communicating with your biggest customers immediately, rather than waiting until the payment deadline has passed. Act proactively to minimize the risk of disputes and late collections. Also, get the basics right, such as timely and accurate invoicing and start monitoring cash collections daily.

16 Deloitte (2020). Managing Cash flow during a period of crisis

4) Stretch payables

One way of improving your working capital position in the short term, is to take longer to pay your suppliers. Such an approach can, however, cause serious damage to your relationships with your suppliers and could lead to delivery and quality problems. We therefore recommend to consult with suppliers in order to establish proper agreements. There might even be situations where you need to accelerate payables for a critical supplier that is on the brink of failure in order to preserve the integrity of your supply chain and prevent a critical disruption.[17]

5) Consider alternate supply chain financing options

Depending on what your cash flow scenario planning reveals, you may need to utilize your credit facilities for working capital. However, the negative economic conditions caused by COVID-19 could limit that access, so you may need to consider tactics to generate faster cash flow from your receivables. Although relatively expensive, debtor factoring may be one of your best options to improve cash flow quickly. You can also try to get short-term financing from your customers by agreeing to shorter payment terms in return for discounted payment.

6) Cash Flow Forecasting

In times of liquidity problems, it is extremely important to have an insight into cash flows for the short and medium term. Actions include an increased frequency of cash-flow forecasting, facilitating visibility and daily monitoring of cash balances. Establish a robust short-term cash flow forecast for 3 to 6 months and run multiple scenarios with frequent revisions. Scenario planning gives management the confidence to make needed decisions and to shape communications about the response strategy.[18]

> “There is really only one way to address cash flow crunches, and it’s planning so you can prevent them in advance.”
>
> —Elaine Pofeldt, writer, editor, and author of The Million-Dollar, One Person Business

7) Embrace digitization

According to a study of McKinsey, even before Covid-19 pandemic started to unveil, as many as 92% of companies thought their business model would need to change given digitization.[19] When the disruption actually hit, it showed to everyone the level of digital (un)preparedness.

The situation provoked a large part of the global workforce to perform their work remotely, making digital-collaboration tools necessary to keep the business functioning. One other recent McKinsey study showed that even on the B2B side, digital interaction is

17 Deloitte (2020). Managing Cash flow during a period of crisis

18 PWC (2020). COVID-19: Finance and liquidity

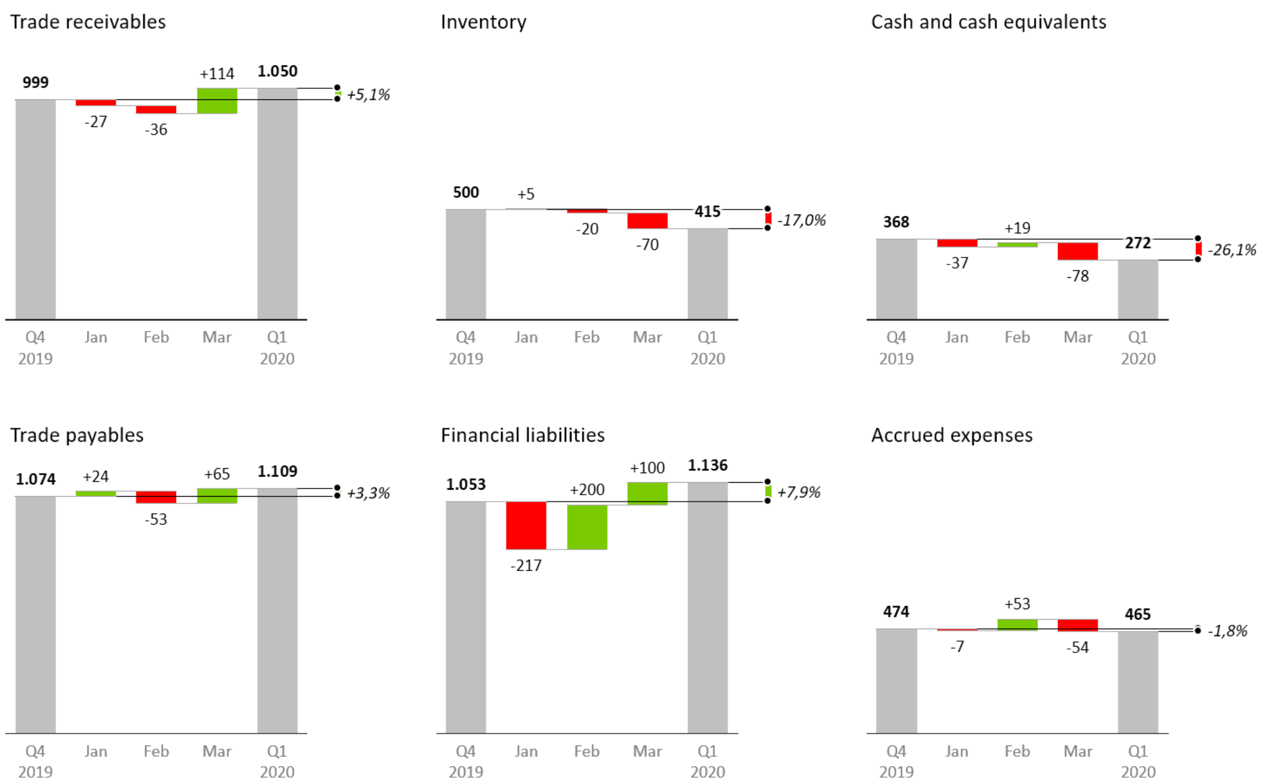
19 McKinsey Digital (2020). The digital-led recovery from COVID-19: Five questions for CEOs

now two times more important than traditional channels, which is an increase of 30% since the crisis hit.However, the immediate response in rescuing businesses was mainly concentrated internally around the finance team and their tools to manage the crisis. Data analytics, real-time forecasts and accurate reporting using collaborative dashboards should be further developed and promoted across the organization not only during difficult times.

When it comes to working capital management, IT systems should give the full support from end-to-end with tracking and tracing the whole operating cycle. If the operations, transactions and processes are too manually controlled, a lot of opportunities and weaknesses may not be identified and with high lead-time between different steps, this may result in longer cash conversion cycles.[20]

With upgrading your business intelligence system, it is also an opportunity to review your financial reports and key performance indicators (KPI). The necessity of real time quality reporting using clear dashboards is becoming crucial for informed decision making in any business continuity as well as a preparation for potential future crises.In the following chart we are demonstrating how a simple visualization using Zebra BI can effectively facilitate tracking of your company's working capital variations over multiple periods.

Visualization of working capital variation using small multiples chart



20 KPMG (2020). Manage the impact on Working Capital

Ratio Analysis

Working Capital is measured through ratios and financial KPI's, but if you want to improve those KPI's, you will have to optimize the underlying process.

There are several financial ratios and metrics that are closely related to working capital and liquidity. For the purpose of this paper we have selected two of the most frequently used.

Current Ratio

Working capital is calculated by using the current ratio, which divides current assets by current liabilities. A ratio above 1 means that current assets exceed liabilities, and generally, the higher the ratio, the better. High ratios mean that a company can more easily fund its daily operations and that it will less likely need to take on additional debt to finance its growth.

$$\text{Current Ratio} = \frac{(\text{Current Assets})}{(\text{Current Liabilities})}$$

The calculation is based on a rolling 12-month period which means that the working capital figure change over time and can change every day.The current ratio can be misleading if a company's current assets are heavily weighted in favor of inventories since this current asset can be difficult to liquidate in the short term. This problem is most obvious if there is a low inventory turnover ratio. A similar problem can arise if accounts receivable payment terms are quite lengthy (which may be indicative of unrecognized bad debts).[21]

Cash Conversion Cycle (CCC)

The cash conversion cycle (CCC) also called Net Operating Cycle or simply Cash Cycle is a metric that expresses the time (measured in days) it takes for a company to convert its investments in inventory and other resources into cash flows from sales (cf. the connection to Operating Cycle in Chapter 2).

21 Investopedia (2019). How Do the Current Ratio and Quick Ratio Differ?

Tracing the lifecycle of cash used for business activity, it follows the cash as it is first converted into inventory and accounts payable, then into expenses for product or service development, through to sales and accounts receivable, and then back into cash in hand.

Essentially, CCC represents how fast a company can convert the invested cash from start (investment) to end (returns).

How to Calculate Cash Conversion Cycle

$$CCC = DIO + DSO - DPO$$

Days sales of inventory (DSI) is the average number of days it takes for a firm to sell off inventory. A high DSI can indicate that a firm is not properly managing its inventory or that it has inventory that is difficult to sell.

$$DIO = \frac{Average\ Inventory}{COGS} \ x\ number\ of\ days$$

Days Sales Outstanding (DSO) is a measure of the average number of days that it takes a company to collect payment after a sale has been made. Generally speaking, a DSO under 45 days is considered low; however, what qualifies as a high or low DSO may often vary depending on business type and structure.

$$DSO = \frac{Average\ Accounts\ Receivable}{Revenue} \ x\ number\ of\ days$$

Days Payable Outstanding (DPO) is a measure that indicates the average number of days that a company takes to pay its bills and invoices. Companies having high DPO can use the available cash for short-term investments and to increase their working capital and free cash flow.

$$DPO = \frac{Average\ Accounts\ Payable}{COGS} \ x\ number\ of\ days$$

As DIO and DSO are linked to inventory and accounts receivable, which are short-term assets, they are taken as positive figures, whereas DPO, linked to accounts payable, is taken as negative.

Source: Investopedia

CCC is one of several quantitative measures that help evaluate the efficiency of a company's operations and management. **A trend of decreasing or steady values over multiple periods is a good sign while rising CCC should lead to more investigation and analysis based on other factors.**[22]

- To calculate CCC, you need several items from the financial statements:
- Revenue and cost of goods sold (COGS) from the income statement
- Inventory at the beginning and end of the time period
- Accounts receivable (AR) at the beginning and end of the time period
- Accounts payable (AP) at the beginning and end of the time period
- The number of days in the period (e.g. year = 365 days, quarter = 90)

The full CCC formula applies only to companies managing inventories; service companies, software, insurance companies, etc. should disregard DIO (Days Sales Inventory) and apply only financial ratios concerning receivables (DSO)and payables (DPO).

22 Investopedia (2020). Cash Conversion Cycle (CCC)

Conclusion: *It's time to seize the BI potential*

Covid-19 pandemic exposed world's vulnerability to unexpected events. Economies were hit severely and many industries need to rely on government support programs in order to survive. However, for each individual company, waiting to weather the storm and **doing nothing is the worst option**. They need to act decisively with quick adaptations to the new reality and thoroughly prepare their strategies for the future.

Working capital management as one of the focus areas will pave the way for successful recovery and strong emergence in the post-pandemic era. Rational companies will apply and follow strict rules according to their newly revised strategies. They will remain conscious about the big picture and the entire value chain on the long run regardless of the economic situation.

For many, the competitive advantage already has been and will increasingly prove to be a question of their IT capabilities. The pandemic has accelerated the use of technologies into new heights and there will be no stopping. Hence, the **key tool to empower business strategies is business intelligence**, a cornerstone of companies' informed decisions and swift responses to current and future business environment challenges.

About Jan Stele

Jan is an accomplished business controller with more than 10 years of international experience from Paris to Moscow in one of the top European Energy Utility companies. A combination of extensive financial background and creative approach to financial reporting and problem solving allows him to develop new applications of Zebra BI visualization tools.

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