

MODULE 2 · SESSION 1

Trace Cash Through Operations

How to map the timing of purchasing, production, sales and collection — and find the cash trapped between them.

Theory session

Intermediate

Running case: FreshRoute Kitchens



Where this session sits

Module 1 made the numbers reliable; Module 2 turns them into cash insight

MODULE 1

Build Reliable
Financial Foundations

MODULE 2

**Manage Cash
and Uncertainty**

MODULE 3

Choose and
Manage Funding

SESSIONS IN THIS MODULE

2.1

Trace Cash Through Operations

Finding the cash trapped between purchase and collection

YOU ARE HERE

2.2

Model Forecasts Under Uncertainty

Driver-based base, downside and upside cases

2.3

Size the Funding Requirement

Turning a cash forecast into a defensible ask

What this session explains

Locating cash inside the operating cycle rather than on the income statement

01 The cycle is a timing measure

How long cash is committed between paying suppliers and collecting from customers.

02 Working capital is a use of cash

Growth in receivables and inventory consumes funding even when the business is profitable.

03 Each component has different levers

Inventory, receivables and payables respond to different decisions and different people.

04 Terms are negotiable, and they have a price

Extending payables is free funding until it damages the supply relationship.

What the cash conversion cycle measures

A duration, expressed in days, not an amount

WORKING DEFINITION

The cash conversion cycle is the number of days between paying for inputs and collecting from customers: inventory days plus receivable days, less payable days. It is the period your own money funds the operation.

1

Days inventory outstanding

How long material sits before it is sold. $\text{Inventory} \div \text{daily cost of goods sold}$.

2

Days sales outstanding

How long an invoice waits before it is paid. $\text{Receivables} \div \text{daily revenue}$.

3

Days payable outstanding

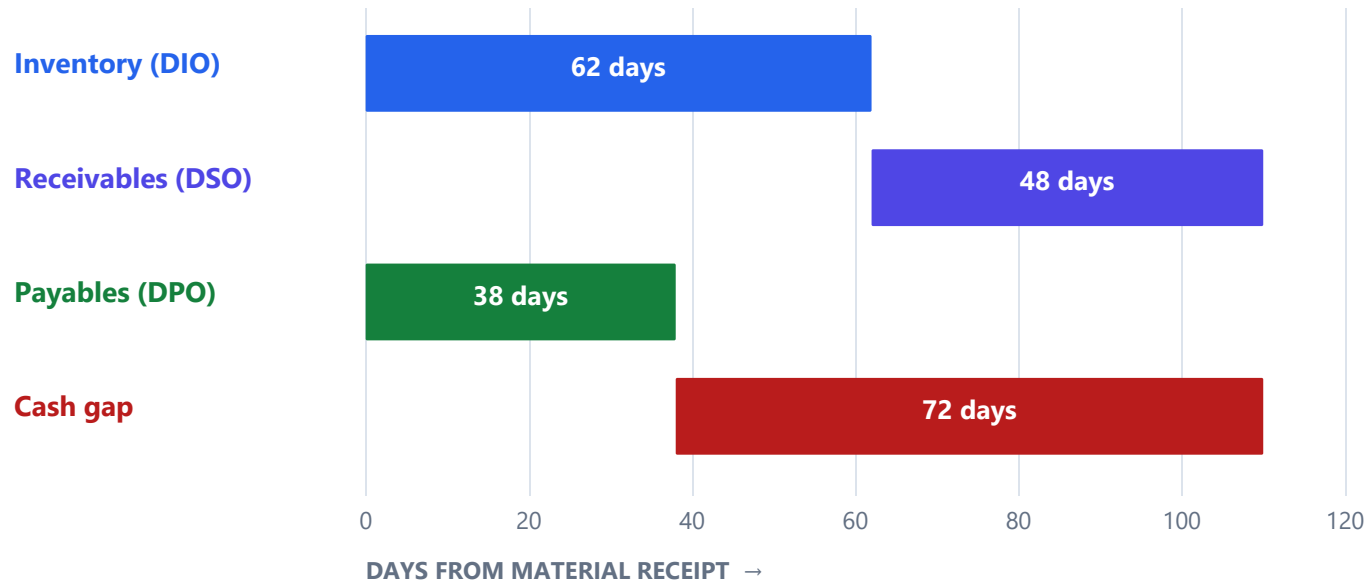
How long you hold supplier cash. $\text{Payables} \div \text{daily cost of goods sold}$ — subtracted, because it funds you.

Richards, V. & Laughlin, E. (1980). A cash conversion cycle approach to liquidity analysis. *Financial Management*, 9(1), 32–38.

Where the cash gap opens

The gap is the distance between paying out and being paid

AN ILLUSTRATIVE OPERATING CYCLE



$\text{DIO } 62 + \text{DSO } 48 - \text{DPO } 38 = \text{a 72-day cycle. That is how long your own cash funds each unit.}$

READING IT

The red band is the ask

Every day in the gap must be financed by retained cash, an overdraft, or a facility.

WHY IT GROWS

Growth lengthens it

More volume means more inventory and more receivables at once. Growth is funded before it is earned.

THE PRIZE

Days are money

Cutting 10 days at £40k of daily cost of sales releases roughly £400k of cash, once.

Three components, three different sets of decisions

Each sits with different people, which is why finance alone cannot fix the cycle

Component	Levers that shorten it	What it costs you
Inventory days	Smaller batches, better demand forecasting, supplier lead-time reduction, SKU rationalisation.	Higher unit cost from shorter runs; risk of stock-outs.
Receivable days	Invoice on despatch not month-end, shorter terms, deposits, disciplined chasing, early-payment discount.	Discounts are expensive funding; hard terms can lose customers.
Payable days	Negotiated terms, consolidated suppliers, aligning payment runs to collections.	Strained relationships, lost early-settlement discounts, supply risk.

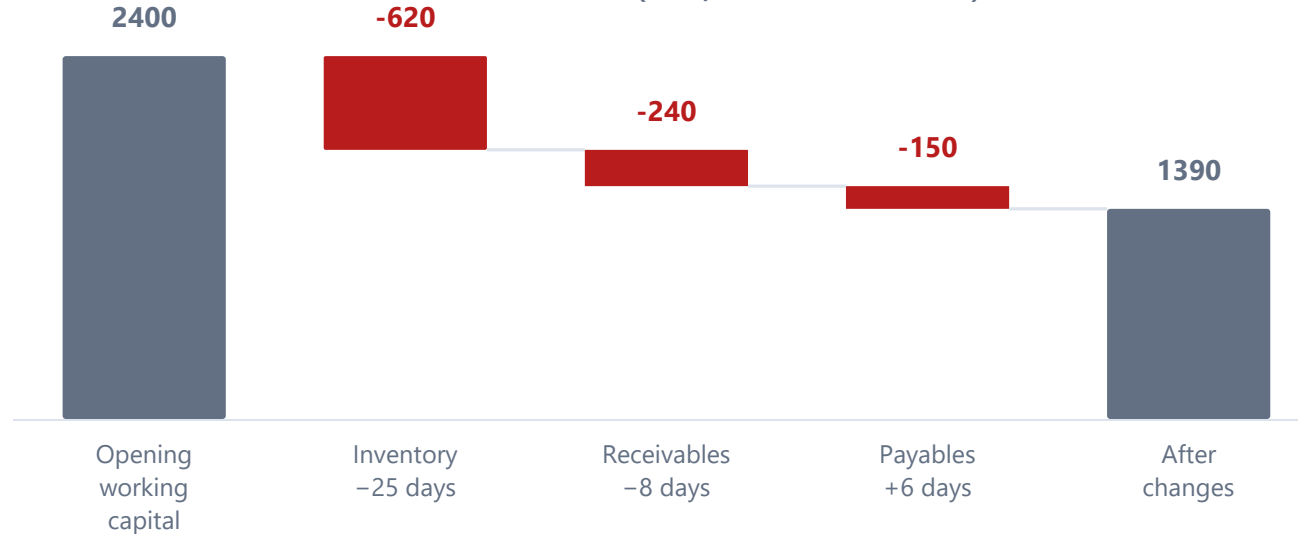
ALL THREE AT ONCE

The manufacturer used all three: batch-level costing supported inventory and pricing decisions, while vendor terms were renegotiated across logistics, packaging and testing.

What a day is worth

Converting cycle days into a cash figure makes the negotiation concrete

CASH RELEASED BY THE REPORTED IMPROVEMENTS (£000, ILLUSTRATIVE RATES)



Each day removed from the cycle releases cash once. The improvement is permanent; the cash release is not repeatable.

THE FORMULA

Days × daily cost

Inventory and payables move with daily cost of sales; receivables move with daily revenue.

THE CAUTION

A one-off release

Shortening the cycle frees cash once. It improves the funding requirement, not the margin.

THE SECOND EFFECT

Growth costs less

A shorter cycle means each additional pound of sales absorbs less cash — which matters more than the one-off.

Liquidity and profitability pull in opposite directions

Most working-capital decisions are a trade between them

TIGHTEN THE CYCLE

Liquidity improves

WHAT YOU DO

Hold less stock, collect faster, pay later.

WHAT IMPROVES

Cash available, funding requirement, resilience to a delayed receipt.

WHAT IT COSTS

Stock-outs, discounts given, supplier goodwill spent.

LOOSEN THE CYCLE

Trading improves

WHAT YOU DO

Hold buffer stock, offer generous terms, settle suppliers early.

WHAT IMPROVES

Service levels, customer acquisition, supplier pricing and priority.

WHAT IT COSTS

Cash tied up, and a larger external funding requirement.

CHOOSING A POSITION

There is no universally correct position. The right one depends on your cost of capital and how easily you could raise the next pound — which is Session 2.3.

Reading a cycle that is too long

Each component fails for characteristic reasons

INVENTORY-HEAVY Long DIO. Usually demand forecasting, batch sizing or SKU proliferation — rarely a warehouse problem.	RECEIVABLE-HEAVY Long DSO. Usually invoicing delay or absent collections discipline, not customer unwillingness.	PAYABLE-STARVED Short DPO. Often paying faster than terms require, because nobody set a payment policy.
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THE FIRST QUESTIONS TO ASK

Component	Check this before anything else
Inventory	What proportion of stock value has not moved in 90 days?
Receivables	How many days from despatch to invoice issue? This is often the largest single slice.
Payables	Are you paying earlier than agreed terms? Many companies do, by default.

Three cash habits that create avoidable pressure

Each is common, and each is visible in the cycle before it is visible in the bank

Invoicing on a monthly run

Looks like Despatch on the 2nd, invoice on the 30th.

Why it fails Up to 28 days of free credit given away before the payment clock even starts.

Fix Invoice on despatch.

Growing without funding the cycle

Looks like Record sales, tighter cash.

Why it fails Each new order absorbs working capital months before it collects.

Fix Forecast the cycle, not just the revenue — Session 2.2.

Using payables as the only lever

Looks like Stretching suppliers when cash is tight.

Why it fails It is borrowing from people who can withdraw supply at the worst moment.

Fix Renegotiate terms openly rather than paying late quietly.

CASE STUDY

A spices and ingredients manufacturer

An exporter whose reported sales said little about the cash actually available.

Measurement, terms and financing together

No single lever shortened the cycle

THE POSITION

Cash committed before collection

WHERE IT SAT

Cash locked in inventory and receivables, with a long and inconsistent cash conversion cycle.

THE COMPOUNDING PROBLEM

Weak financial visibility and planning made it hard to see where value was delayed or lost.

THE SYMPTOM

Tight cash flows and inconsistent margins, despite trading.

THE RESPONSE

Four connected levers

MEASUREMENT

Batch-level cost tracking, so product economics could be seen per production decision.

COMMERCIAL AND SUPPLIER TERMS

Improved pricing models; vendor terms renegotiated across logistics, packaging and testing.

THE RESULT

Cycle cut by 10–15 days: inventory days down up to 25, receivable days down 5–10, plus ₹20 Cr in additional limits.

READING THE CASE

The cycle was not shortened by one lever. Measurement made the economics visible, commercial terms changed what was committed, and financing covered what remained.

Drawn from the session case pack.

Bringing the theory to FreshRoute Kitchens

Finding and costing the trapped cash

Step	What you calculate	FreshRoute example
Measure the three	DIO, DSO, DPO from the last twelve months.	DIO 34, DSO 47, DPO 21 — a 60-day cycle.
Price a day	Daily cost of sales and daily revenue.	£18k daily cost of sales; one day $\approx$ £18k of inventory or payables.
Find the biggest slice	Which component is furthest from its sector norm?	DSO 47 against 30-day terms — invoicing lags despatch by 11 days.
Fix the mechanical part first	Process delays before commercial negotiation.	Invoice on despatch: 11 days, roughly £200k, no negotiation needed.
Then negotiate	Terms, with something offered in return.	Packaging supplier: 21 to 45 days in exchange for volume commitment.
Re-measure	The cycle, monthly, alongside the close.	Target 45 days within two quarters.

WHAT COMES NEXT

Session 2.2 projects this cycle forward under different assumptions.

What to carry out of this session

- 1 The cycle measures days, not money.**
Convert it with daily cost of sales to make the conversation concrete.
- 2 Growth consumes working capital first.**
Each new order absorbs cash months before it collects.
- 3 Fix mechanical delays before negotiating terms.**
Invoicing lag is free to remove; supplier terms cost goodwill.
- 4 The three components sit with different people.**
Finance cannot shorten a cycle alone — operations and sales own two-thirds of it.
- 5 A shorter cycle releases cash once.**
The lasting benefit is that future growth absorbs less of it.

Sources for this session

Primary references behind each concept

CASH CYCLE	Richards, V. & Laughlin, E. (1980). A cash conversion cycle approach to liquidity analysis. <i>Financial Management</i> , 9(1), 32–38.
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PERFORMANCE LINK	Deloof, M. (2003). Does working capital management affect profitability? <i>Journal of Business Finance & Accounting</i> , 30(3–4), 573–588.
GROWTH AND CASH	Churchill, N. & Mullins, J. (2001). How fast can your company afford to grow? <i>Harvard Business Review</i> , 79(5), 135–143.
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OPERATIONS LINK	Nahmias, S. & Olsen, T. (2015). <i>Production and Operations Analysis</i> (7th ed.). Long Grove: Waveland Press.
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