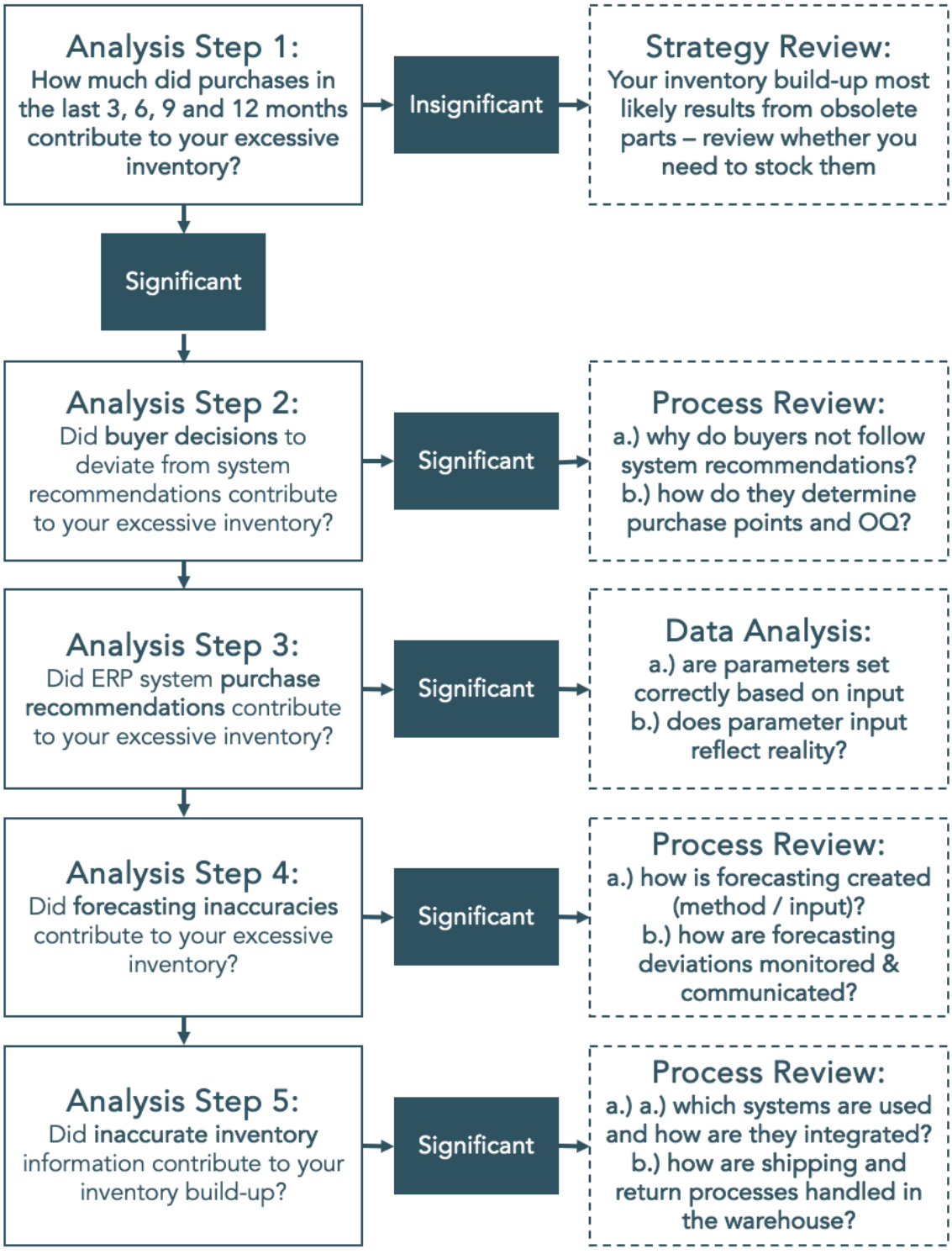
Actionable Insights 5 Step Analysis to sustainably optimise inventory and increase liquidity



Introduction

In times of increased interest rates and reduced availability of cheap liquidity, optimising inventory levels is becoming an important source of liquidity for most companies.

Still most companies struggle to do so sustainably.

Often those efforts end up disrupting sales as they result in stockouts. Or companies experience their efforts turning into a game of whac-a-mole with constantly new SKUs popping up as slow moving.

The reason most companies struggle to sustainably optimise their inventory is that most companies launch adhoc activities like temporarily stopping the purchase of slow moving SKUs, without, or rather instead of, truly understanding and addressing the root-causes.

5 Step Analysis Framework

The following 5 Step Analysis Framework by Actionable Insights©, combining data analytics with sales and purchasing experience as well as using a clear logic-tree method enables you to:

a.) **validate** precisely which factors contributed inventory buildup as well as stockouts, and

b.) **quantify** how significantly each factor contributed.

Validating and quantifying the root-causes of inventory buildup as well as stockouts empowers your operations team to define their own, effective actions to prevent future buildup and stockouts.

To sustainably optimise inventory by eliminating the root-causes.

Analysis Step 1 – Contribution of recent purchase activities

To what extend did purchases in the last 3, 6, 9 and 12 months of sales- / production-listed SKUs contribute to slow moving inventory?

Most companies do not conduct this analysis, but it is an important first step. It provides insights into whether the slow moving inventory buildup has ongoing operational or rather

strategic / historic root-causes. In most cases recent purchases have contributed significantly to the inventory buildup.

The value of inventory buildup from recent purchases shows you the liquidity improvement potential in your inventory. For those sales- / production-listed SKUs where the inventory buildup is caused by recent purchases you continue with Analysis Step 2 (see below).

In the rare cases where recent purchases added only insignificantly to slow moving inventory, the root-causes are either strategic or historic and offer limited liquidity improvement potential.

In those cases the root-cause is likely stock-keeping of discontinued SKUs. This could either be triggered by a lack of housekeeping - lack of regular review and clean-up - or by a strategic decision to keep these SKUs as spare parts.

The only cases where historic slow moving inventory holds future revenue or liquidity potential are for machinery with a long part lifespan (higher breakage is expected to occur in the future) and even longer overall lifespan (strong secondary market).

In those cases the next analytical steps would be to:

1.) conduct a review legal requirements to hold those parts (e.g. from warranties),

2.) conduct an assessment of expect volume both for warranty period and post warranty period,

3.) conduct a revenue assessment for post-warranty spare part sales,

4.) analyse the opportunity for 3rd party retailer specialising in spare parts to take over the inventory.

Analysis Step 2 – Contribution of buyer decisions

1.) Did your buyer purchase quantities different from the recommendations of your ERP system? 2.) Did those decisions contribute to the inventory buildup?

If you find that 1.) your buyers did purchase quantities significantly diverging from the system recommendations and 2.) that those contributed to the inventory buildup, then you need to:

a.) **understand why buyers do not follow the recommendations** from your ERP system, by conducting process walk-throughs. Process walk-throughs provide a non-intimidating opening to discuss why buyers do not follow ERP system recommendations rather than asking those questions directly.

Often, this behaviour stems from a change in system, whether it is a new ERP system or a new process due to leadership changes which has not been embraced by the buyers or where buyers feel insufficiently trained.

b.) before conducting those walk-throughs you should **validate the accuracy of ERP system recommendations** - Analysis Step 3 (see below).

You will frequently find, that both the ERP system recommendations and the buyer decisions would both have contributed to inventory buildups or stockouts. Meaning the buyers have "cause" to not trust the ERP system recommendations but are also making decisions leading to inventory buildup or stockouts.

c.) **understand which decision parameter the buyer use to make purchase decisions** and how those cause the inventory buildup or stockouts.

There can be wide variety of reasons why buyer make purchase decisions that contribute to inventory buildup.

Recently we found an increased number of cases where buyers had changed their parameters to reflect insecurities in the supply chain (e.g. COVID disruptions) and not adjusted them once the situation stabilized – ongoing disruptions through military conflicts do have an impact but not nearly to the same degree as COVID did.

Another very common cause is that during times of exploding freight costs and low financing costs the focus had been on optimizing freight costs per unit at the expense of increased inventory. Now that financing costs have increased and access to financing decreased while freight costs have also decreased, many buying team have not yet changed their strategy.

Analysis Step 3 – Contribution of ERP system recommendations

How did the purchase timing and volume recommendations from your ERP system contribute to the buildup?

If you find that the recommendations did have significant influence, then you need to conduct a data review of the purchasing parameter in your system:

- Are they calculated correctly?
- Is the information used to calculate them, like supplier parameter, correct?
- How often are parameter reviewed and updated?

The data analysis needs to be accompanied by a process walk-through to understand the root-causes of the purchasing parameter issues.

As said before – we have see mainly 2 root-causes for issues in this area:

1.) Changes in system / method not accepted or not sufficiently trained

2.) Outdated approaches due to change in financial and shipping conditions

Analysis Step 4 – Contribution of forecasting inaccuracies

1.) Are there significant differences between your forecast and your actual sales? 2.) If yes, did they significantly contribute to the inventory buildup or stockouts?

If you find that 1.) you have significant differences between forecasting and sales, and 2.) that those differences contributed to inventory buildup or stockouts, then you need to conduct process walk-throughs to understand:

a.) What has caused the differences between forecast and actual sales? Does the forecasting process need to be fixed?

b.) What is the process to monitor and react to divergences between forecast and actual sales. How do sales and operations work together?

There are a variety of methods to create sales forecasts and there is not the one right method.

We often find that methods are dictated by principle rather than consideration of actual circumstances, causing not only constant frustration but also a lack of development monitoring because salespeople blame divergences on the “impossible method” instead of a lack of monitoring and communication.

Clear insights into how your current forecasting has contributed to excessive inventory or stockouts will provide you with the right starting point to optimise your forecasting process both for efficiency and accuracy.

Analysis 5 – Contribution of inaccurate inventory information

1.) Are there indications for significant inaccuracies in inventory information outside of accounting cut-off days? 2.) Did those inaccurate inventory level informations contribute to the inventory buildup or stockouts?

Most managers would outright discard this possibility. And most would be surprised to find that this is a factor more often than expected, though rarely the dominant root-cause.

We have found that issues around inaccurate inventory information often trace back to

a.) the use of different systems to manage inventory from PO to stocking, from CO to shipping, to returns, which are not well integrated, or

b.) shipping and return handling processes in the warehouse which are flawed or overwhelmed

So despite the fact that this is rarely the dominant root-cause, it is an important analysis as it often provides insights for other improvement projects touching crucial areas like OTIF and complaints. Providing a more complete picture of the impact lack of system integration or flawed warehouse processes have.

Bringing together the required competences to conduct a successful 5 Step Analysis Review

Once you conduct this 5 Step Analysis Review in your company you will be guaranteed able to identify the exact internal root-causes leading to your inventory buildup or stockouts. And your team will be able to develop effective action plans to sustainably optimise your inventory.

To conduct those analyses, you need to combine not only data analytical expertise but both operations planning and sales forecasting expertise as well as a strong logic tree methodology as preliminary analyses often trigger additional analyses to deliver precise answers about the root-causes and the quantification of their impact.

If you feel your organization needs support to conduct these analyses or to address the issues you find, feel free to contact our team at Actionable Insights and Impact Consulting for a free initial consultation to see whether and how we can support you and your team in sustainably optimising your inventory.