

ESA Webinar: Disruptive Technologies

Supply Chain Digitisation: A practical approach

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PSCCG Private
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Regional Private Sector Group – East and Southern Africa

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What do we mean by

SUPPLY CHAIN DIGITISATION?



DIGITAL TECHNOLOGY

The use of digital technology, such as Big Data solutions, Machine Learning, Web Applications, IoT, etc...



PROCESS TRANSFORMATION

...to transform human-driven processes to software-driven processes...



EFFECIENCY & PERFORMANCE

...with the aim to increase process efficiency and performance, for both internal and external operations.

What do we mean by

DISRUPTION?

“The action of completely changing the traditional way that an industry or market operates by using new methods or technology”

— Cambridge Dictionaries' definition of disruption in business

“...and produces something new and/or more efficient and worthwhile”

— Clayton Christensen

So does that mean that

SUPPLY CHAIN DIGITIZATION = DISRUPTION?

“The action of completely **changing the traditional way that an industry or market operates** by using **new methods or technology**”

“...and produces something **new and/or more efficient** and worthwhile”



**DIGITAL
TECHNOLOGY**



**PROCESS
TRANSFORMATION**



**EFFECIENCY &
PERFORMANCE**

In theory, supply chain digitisation = disruption,

BUT HOW DO WE GET THERE, PRACTICALLY?

CASE STUDY

ONE

The “how not to
do it”

CASE STUDY

TWO

The “almost too
good to be true”

CASE STUDY

THREE

The “trailblazer”

Case study one:

THE “HOW NOT TO DO IT”

The Client

- South African finished goods storage and distribution business
- Recently implemented WMS (warehouse management system) with on-premise server
- Multiple MS Excel sheets being used to capture data

The Why

- 40 hours per month spent on report compilation
- Questionable report accuracy due to the manual nature of the reports
- Late reports and limited access to historic reports

The What

- Build an on-premise data warehouse to centralise all data
- Rebuild all current reports on a web based business intelligence tool
- Automate the refreshing and distribution of the reports

Case study one (continued):

THE “HOW NOT TO DO IT”

Digitisation = disruption?

- On-premise centralised data warehouse was built, but still required maintenance and administration. Other business applications hosted on the same server, so performance became an issue.
- Current reports were replicated on an online BI tool, but nothing changed. The same people were still looking at the same reports showing the same numbers (KPIs).
- Automated report refreshing and distribution was enabled, but manual intervention was still used to “fix” the data in Excel, reducing the time-saving element of the solution.

Key learnings from

THE “HOW NOT TO DO IT”

Don't start with the solution, start with the problem

- The objective of this project was to build a solution and not to solve a problem!
- The problem should have been defined as follows: “We need certain information, at a certain point in time, to make important business decisions. How do we do that?”

It's a marathon, not a sprint

- The maturity of a business with regards to technology, data, and process landscape has to be considered before any digitisation project. We can't go from 0 to 100 with a single project.
- Understanding business maturity can provide us with a digitisation roadmap to ensure a sustainable and achievable end state.

New technology requires new ways of thinking

- The introduction of technology allows us to do things that were previously impossible. We therefore need to challenge everything we think we are certain of. When changing the way we do things, we might also need to change the things we do.

Case study two:

THE “ALMOST TO GOOD TO BE TRUE”

The Client

- South African finished goods storage and distribution business
- Well established WMS (warehouse management system)
- Immature cloud infrastructure and reporting infrastructure in place

The Why

- The warehouse was struggling to pick and ship all the required stock on a regular basis
- This was leading to poor customer service levels

The What

- Investigate and improve picking efficiency
- Pilot the proposed solution

Case study two (continued):

THE “ALMOST TO GOOD TO BE TRUE”

The outcome

- Shift managers did not have full visibility on the required pick volume per shift, and could therefore not track the performance of the pickers.
- Pickers had no visibility of their current or required performance to get through the required volume.
- A basic report, manually updated hourly, was built based on an extract from the WMS showing the required pick volume per shift, as well the pick rate per picker.
- We spent time with the shift manager and pickers at the start and end of each shift to work through the report, working on the employee’s data literacy for 6 weeks.

Digitisation = disruption?

- The pick rate increased by 45%...by only giving the right people, the right visibility, at the right time.
- This company has transitioned to a full blown cloud based data warehouse with automated reporting, enabling their employees to make better decisions!

Key learnings from

THE “ALMOST TO GOOD TO BE TRUE”

Technology is not a solution. It's an enabler.

- Technology did not solve any problems, it merely provided humans with the right information to make better decisions which lead to a problem being solved.
- This guides us to understand that we should be asking our employees “what do you need to make better decisions?”

People should still be at the centre of our focus

- With the introduction of new technologies comes the need to learn new “languages”. Data literacy and employees' ability to understand and interpret information is a key success factor for supply chain digitisation.
- The more a person understands a solution, the more likely that person is to adopt the solution. Technology should always make your life easier.

Case study three:

THE “TRAILBLAZER”

The Client

- A transporter operating in South Africa, Botswana, Namibia, and Mozambique
- GPS tracking and communication to all vehicles
- A sophisticated control tower with visibility on vehicle events, vehicle locations, and driver behaviour

The Why

- Driving infringements is a massive liability on the company in terms of safety and cost
- Regular infringements increase the chance of an accident and endangers the driver and fellow road users
- Some of these infringements, such as harsh breaking, also causes a significant increase in vehicle maintenance

The What

- Vehicle drivers were being contacted by the control tower in the case of a driving infringement such as speeding or harsh breaking, but the events were not decreasing
- Reduce the occurrence of the driving infringements across the entire fleet

Case study three (continued):

THE “TRAILBLAZER”

The Outcome

- Reports were designed to calculate the number and type of driving infringements made by each driver.
- These reports were used to determine what sort of training each driver required as drivers tend to make the same type of infringements over and over
- Each depot manager was then tasked to ensure that each driver gets the training that they require

Digitisation = disruption?

- A 42% increase in driver awareness
- A 45% decrease in safety infringements across all business units

Key learnings

Don't start with the solution. Start with the problem.

Technology is not a solution. It's an enabler.

People should still be the centre of our focus.

**THANK YOU FOR YOUR TIME
QUESTIONS?**