

# Invest in Africa - Investor Readiness Training

Production and Quality Management  
Aug 2021

# Introduction

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Participant introduction: Name, business, industry, role, and expectations

Please log onto [www.menti.com](https://www.menti.com) and use the code **8014 4303**, to answer the polling questions

# Today's Agenda

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- 01 **First Session**
- Introduction
  - Production Management

- 02 **Second Session**
- Supply Chain Analysis

- 03 **Third Session**
- Quality Management
  - Customer Satisfaction Survey

# What you told us...

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**92%** Can guarantee 100% satisfaction of the organisations' products

**57%** Regularly conduct customer satisfaction surveys

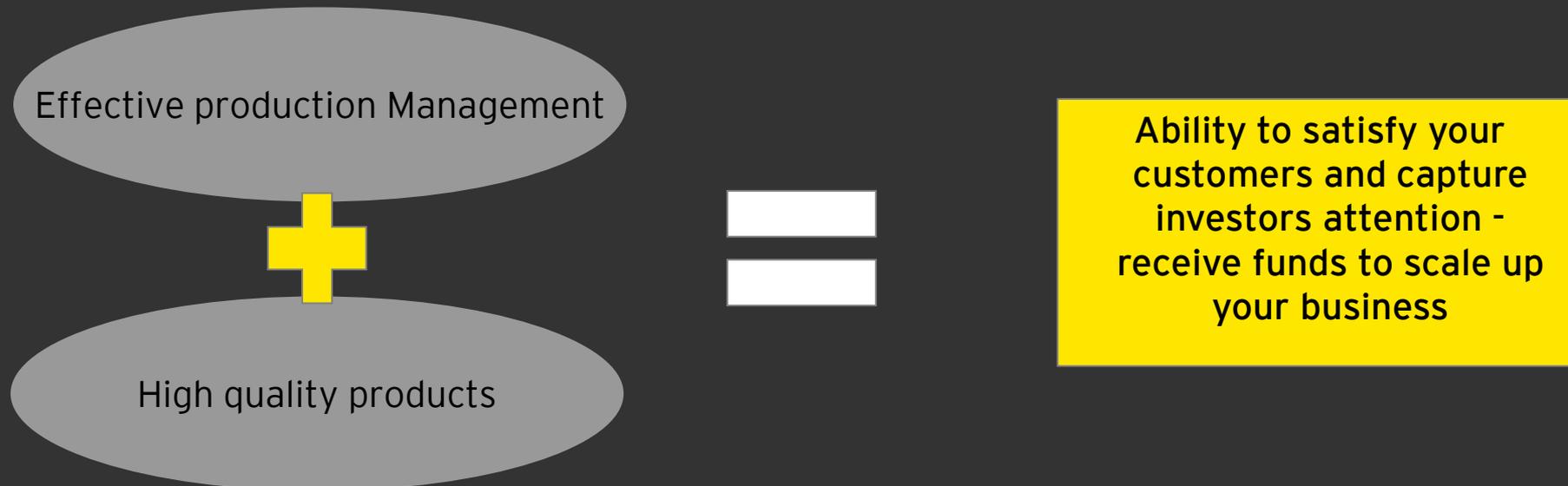
**89%** SMEs indicated that customers constantly complain about their products

**80%** Have products that are differentiated from competitors that offer similar products

# Why this matters...

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- ▶ Investor expectations and confidence
  - ▶ Investors are more likely to give funds to companies that produce high quality products (Which satisfy consumer needs, are differentiated from its competitors, and fair well in the market)
- ▶ Ability to meet customer expectations
  - ▶ Based on product management - Can you meet your orders in time? Can you forecast the demand?
  - ▶ Based on quality management - Do you have systems in place to ensure that your products are of high quality? Customer satisfaction surveys can also be used to receive feedback on quality



A man wearing a blue cap and a white shirt with red and blue stripes is focused on painting a wooden frame. He is using a brush with a yellow handle. In the background, another man in a brown jacket and cap is visible, working in a workshop setting. The scene is overlaid with a semi-transparent grey box containing the text '1 Introduction'.

# 1 Introduction

# A profile of a successful production manager

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**CUSTOMER FOCUSED** Is an advocate for the user and takes a customer centric approach to product development. Maintains a deep understanding of the customer and regularly validates concepts and designs.

**METHOD OF WORK** Is very familiar with the operation's inner-workings, resources and the products/services being produced and can participate and drive ideation sessions, product marketing, and launch

**TECHNOLOGY** understands modern architecture, development practices and technologies for production

**FACILITATION** Can coordinate multi- disciplinary teams to deliver (product, business, technology, governance, development, quality analysis)

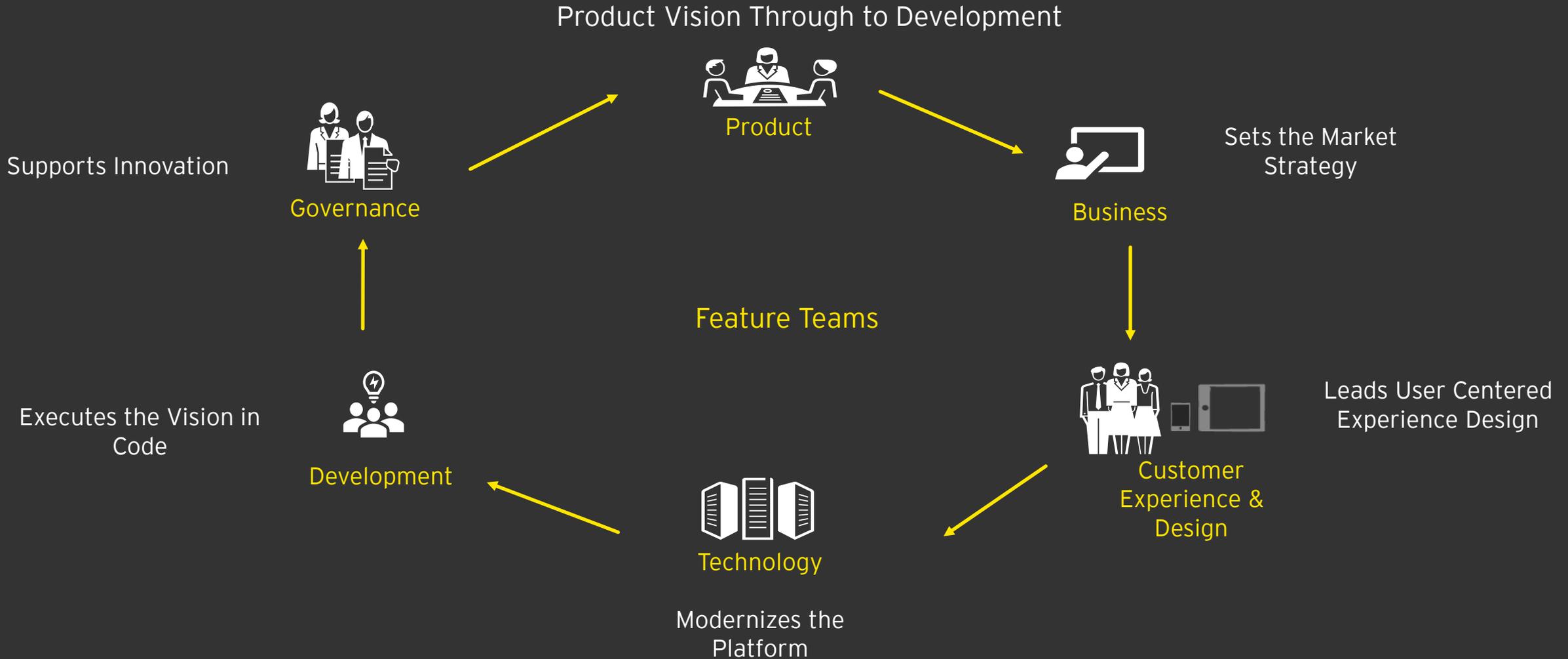
**ACCOUNTABILITY** Owns the product or feature end to end from strategy to launch. Manages the product backlog, makes prioritization decisions and signs off on the acceptance criteria.

**EXPERIENCE** Has led multiple production operations, from concept through development.

**EXPERTISE** Has domain knowledge and understands the dynamics impacting their product such as market trends, technology and regulatory rules.



# The product development ecosystem





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Production  
Management

# Steps to Creating an Effective Production Plan

## Estimate/Forecast Product Demand

Understanding product demand enables you to:

- Estimate which resources are required and how they'll be used in the production process
- Keep up with consumer expectations
- Opportunity loss is avoided
- Helps companies focus on the target market.

## Access Inventory

Accessing inventory is about more than simply taking stock: you should make an inventory management plan so that you don't experience shortages or let things go to waste. For this step, focus on the ways you can use everything in the most efficient way possible

## Account for Everyone and Everything

A successful production plan requires you to be familiar with the operation. Note the minimum number of people necessary to create a product or execute a service. You need to also consider what machines and systems are essential for executing your production plan.

## Monitor Production

As production takes place, monitor how the results compare to the projections. This is something that should continually take place and be documented during production.

**Adjust the Plan to Make Production more Efficient**

# Production Management - Best Practices

In production, your output, revenue, and customer satisfaction all rely on having streamlined and efficient operations. How do you achieve that?

**Incorporate lean manufacturing principles** - focuses on reduced waste, low inventory and efficient systems

**Capitalize on manufacturing tech trends** - technology is constantly growing and changing, it's necessary to stay alert to maintain a competitive advantage.

**Optimize your floor plan** - help to keep the workplace a safe environment for employees

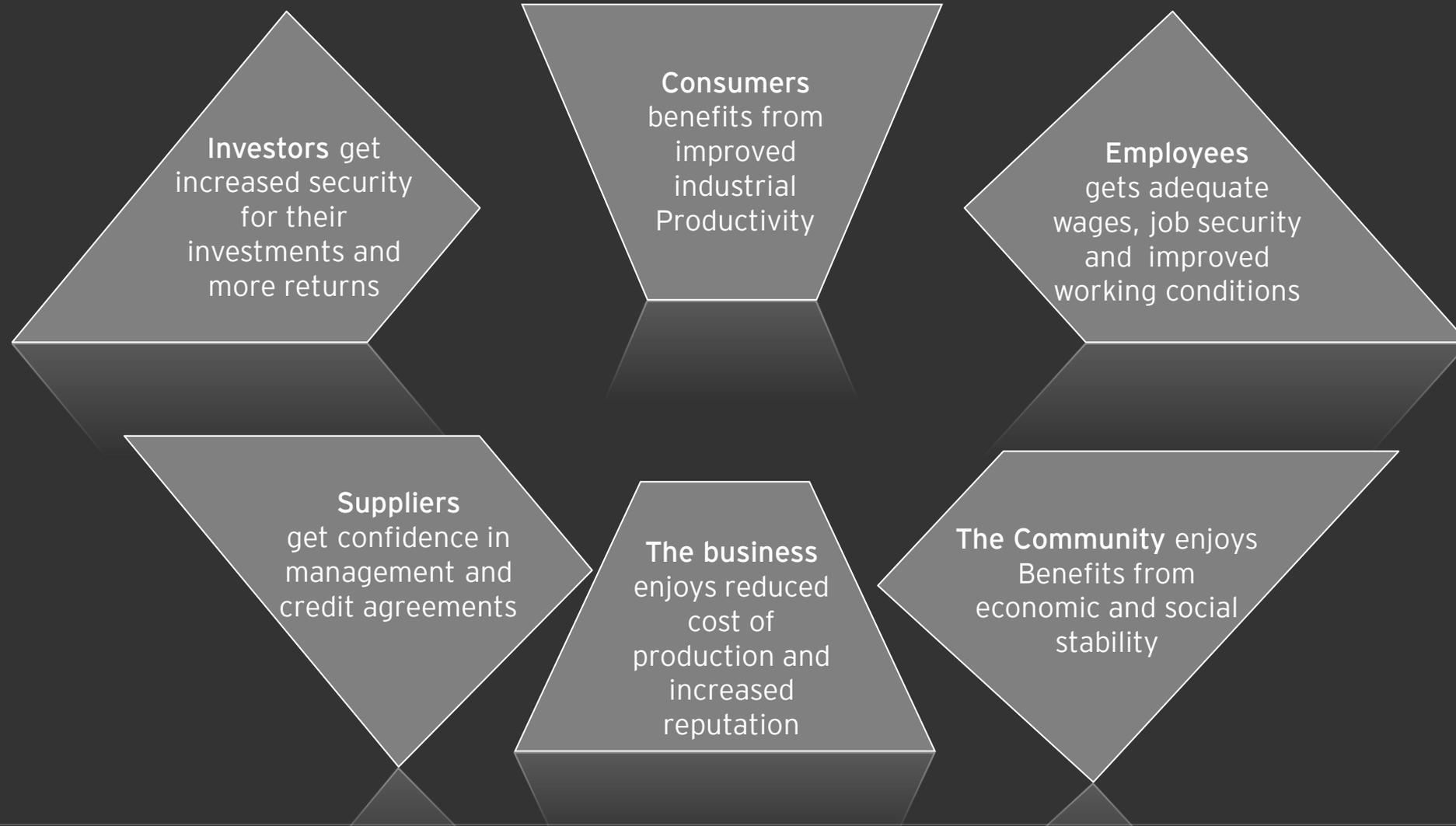
**Train employees continuously** - invest in continuous education and training to avoid labour shortages when adopting new technology

**Know Your Capacity** - knowing the maximum capacity your operation can manage helps to plan for the resources you will need in order to create X amount of products

**Make Forecasts** - Demand is not static, forecasts help in production planning. Consider buying trends, changes in demographics, and changes in resource availability.

# Benefits of Efficient Production Management

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# Poor Production Management Practices can lead to OVERPRODUCTION!!

## SCENARIO 1

Your business is going well and you are worried about not having enough finished products to meet demand - So you increase your rate to reach more customers, and you even start to produce before the demand actually exists, or order more from your supplier in advance.

What are the consequences of overproduction?

- ❖ Staff and equipment are tied up unnecessarily
- ❖ Profitability decreases due to poor inventory management
- ❖ You risk of selling at a loss - In case of overproduction, the only way to sell your goods is to reduce the price
- ❖ For sectors where products have a limited shelf life, or if sales are highly dependent on consumer tastes or trends in markets, companies may have to dispose of or destroy products

## SCENARIO 2

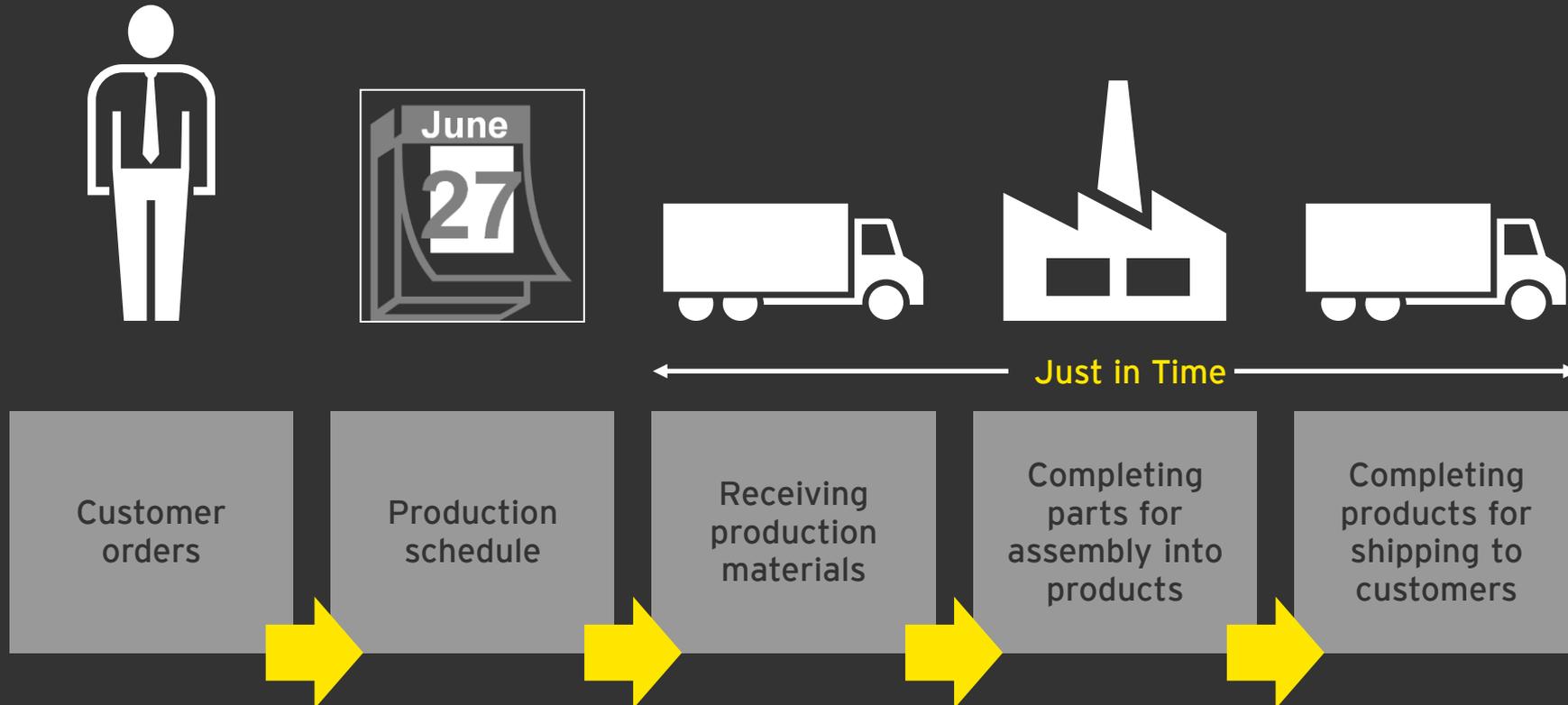
You have trouble keeping up with your production process and you don't know what's happening from one end to the other of your production line. The poor flow of information causes delays and management problems - Your teams have trouble working out how much to produce to meet demand

So, before production, ask yourself...

- ❖ Do you know the actual demand for your product?
- ❖ Is the demand seasonal?
- ❖ Do you still produce the same amount of products, even in the event of declining demand or increasing competition?
- ❖ Do you buy your components and raw materials very early on in the production process?

# Ideal Inventory Strategy for SMEs| Just-in-Time (JiT)

JiT is a set of activities designed to achieve high-volume production using minimal inventories and eliminating waste in the production effort. Companies receive inventory on an as-needed basis instead of ordering too much and risking dead stock



A woman wearing a white hairnet and blue gloves is carefully packing peaches into a cardboard box on a conveyor belt in a factory setting. Another worker is visible in the background. The scene is overlaid with a semi-transparent grey box containing the text '3 Supply Chain Analysis'. A yellow vertical bar is on the right side of the image.

# 3 Supply Chain Analysis

# Supply chain model

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# Plan | Key Metrics

## Days Inventory Outstanding (DIO)

- DIO is an efficiency metric used to measure the average number of days a company holds inventory before selling it (inventory turns).
- A declining ratio over time can indicate that a company is able to sell inventory at a quicker pace.
- An increasing ratio, generally a bad sign, can indicate a company held on to its outstanding inventory for a longer rate than usual.

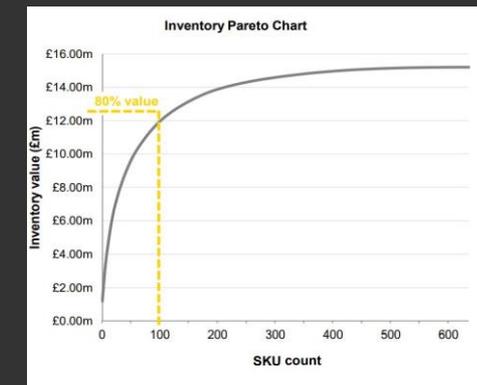
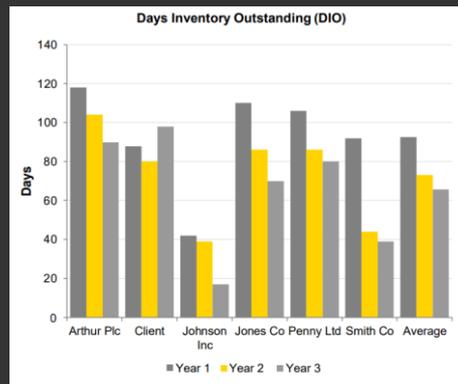
## Perfect order fulfilment

- The perfect order fulfilment is defined as the percentage of orders delivered to the right place, with the right product, at the right time, in the right condition, in the right package, in the right quantity, with the right documentation, to the right customer, with the correct invoice.
- Understanding this supply chain measure is essential for gauging the efficiency and effectiveness of your organization

## Inventory pareto chart

- This is a common analysis to assess the number of SKUs (stock keeping units) in the inventory and their relative importance.
- By showing the contribution to inventory value and/or sales at SKU (Purchased items) level, an '80:20' rule can be established whereby 80% of the value of the inventory should be held in 20% of the inventory, for efficient inventory management.

### Example Outputs



# Source | Key Metrics

## Trend in number of SKUs (purchased items)

- The graph shows per month the number of purchased SKUs by category.
- It is useful in understanding the trend of the number of purchased SKUs and explaining why a firm's external spend volume (demand) and internal cost is increasing, as an increase in the number of SKUs usually is in line with an increase in demand.
- It can also include direct spend or a combination of direct and indirect spend

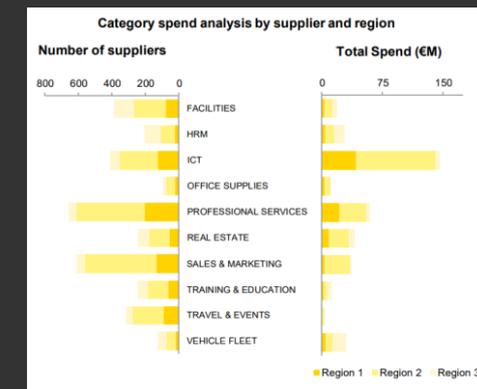
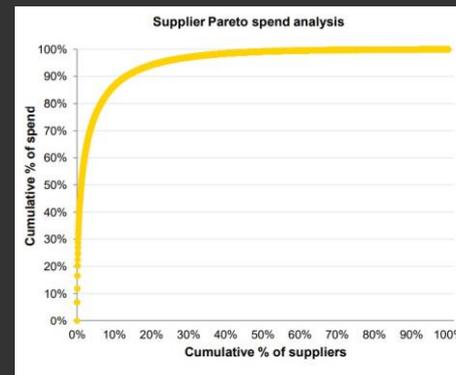
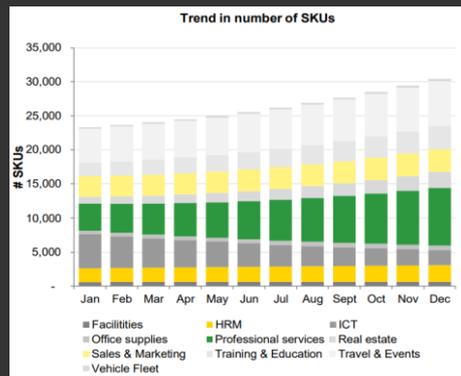
## Supplier pareto spend analysis

- This Pareto supplier analysis shows the cumulative percentage of annual spend by supplier (yellow line).
- The graph is useful in understanding the spread of suppliers and relative spend with them.

## Category spend analysis

- The analysis shows the breakdown of total spend and its number of vendors, by category and by region.
- This analysis is useful in understanding the distribution of spend and the number of suppliers across categories.
- It will enable a business pinpoint categories with excessive spend and/or a high number of suppliers.

### Example Outputs



# Make | Key Metrics

## Finished product, first pass quality

- First pass quality analyses the stability of the production process.
- It measures the number of good parts from the production and compares it with the total number of produced parts in a defined time period.
- If a company has fluctuating first pass quality levels, it means that it might not be able to control and steer the production process efficiently.

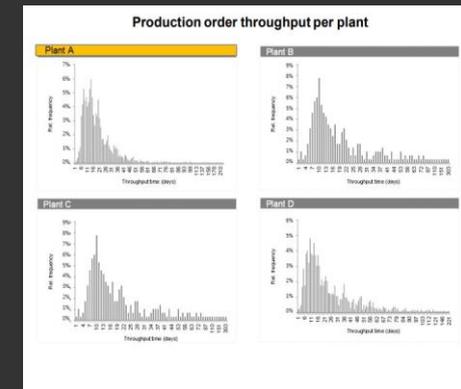
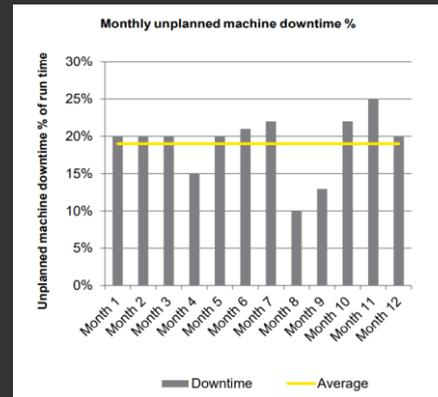
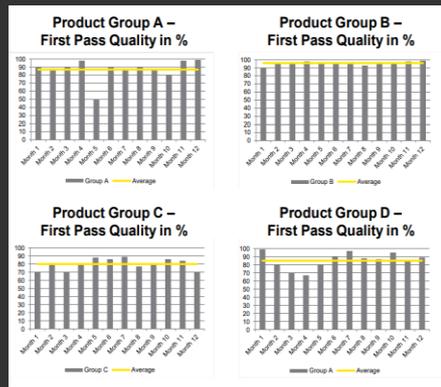
## Unplanned machine downtime as % of run time

- Evaluation of the unplanned machine breakdowns to compare the months or even machines.
- The analysis indicates if the level of maintenance work is sufficient to keep the equipment on a reasonable level. If the unplanned downtimes are on a high level or rapidly increasing from month to month the equipment conditions are not acceptable.

## Throughput analysis - Production order

- Throughput indicates the capability of a production plant, single equipment or even product.
- Measuring it in relation to the frequency of occurrence gives an indication of plant restriction/shortfalls or leading performance.
- The different product-plant-mix has to be considered, as plants can have products with short throughput times as well as and long throughput times.

### Example Outputs



# Deliver | Key Metrics

## Logistics spend as % of revenue

- Logistics spend as a percentage of revenue is a key benchmark to use when assessing the performance of a client against their peers.
- Logistics spend includes all costs required to perform inbound transport, outbound transport and warehousing (storage and handling costs), plus any relevant management or planning costs.

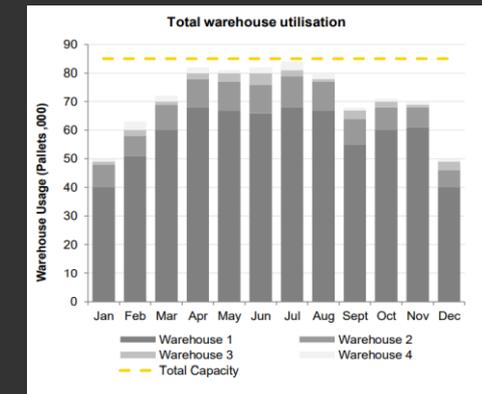
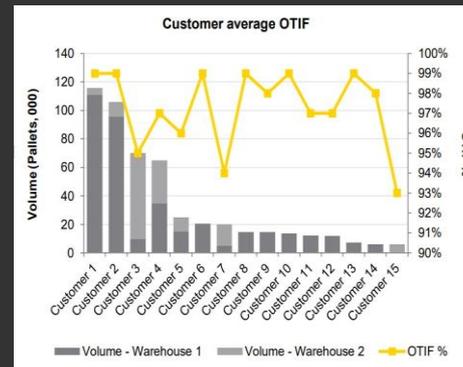
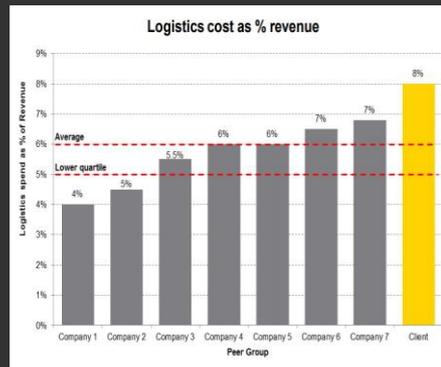
## On Time In Full (OTIF) - % by Customer

- OTIF is a key logistics performance metric that measures how often an order is fulfilled on time and correctly (i.e., no missing/damaged product).
- OTIF % is simply the proportion of total deliveries completed on time and in full.
- It is often used as a KPI in third party logistics contracts linked with performance incentives or penalties.

## Warehouse utilization

- Companies can either own/operate their own warehouses, use a third party warehouse service or use a combination the two solutions.
- In any case, the aim should be to only pay for the warehouse capacity required and avoid significant costs of space not being used. Warehouses are typically most cost and operationally efficient when 95% utilised.

### Example Outputs





# 4 Quality Management

# Understanding Product Quality

Product quality describes a product's capability to meet user standards while also satisfying their needs

Does it solve a problem?

Is it easy to use??

Is it tailored to your customers' needs?

High product Quality Enable you to:

Grow your Brand

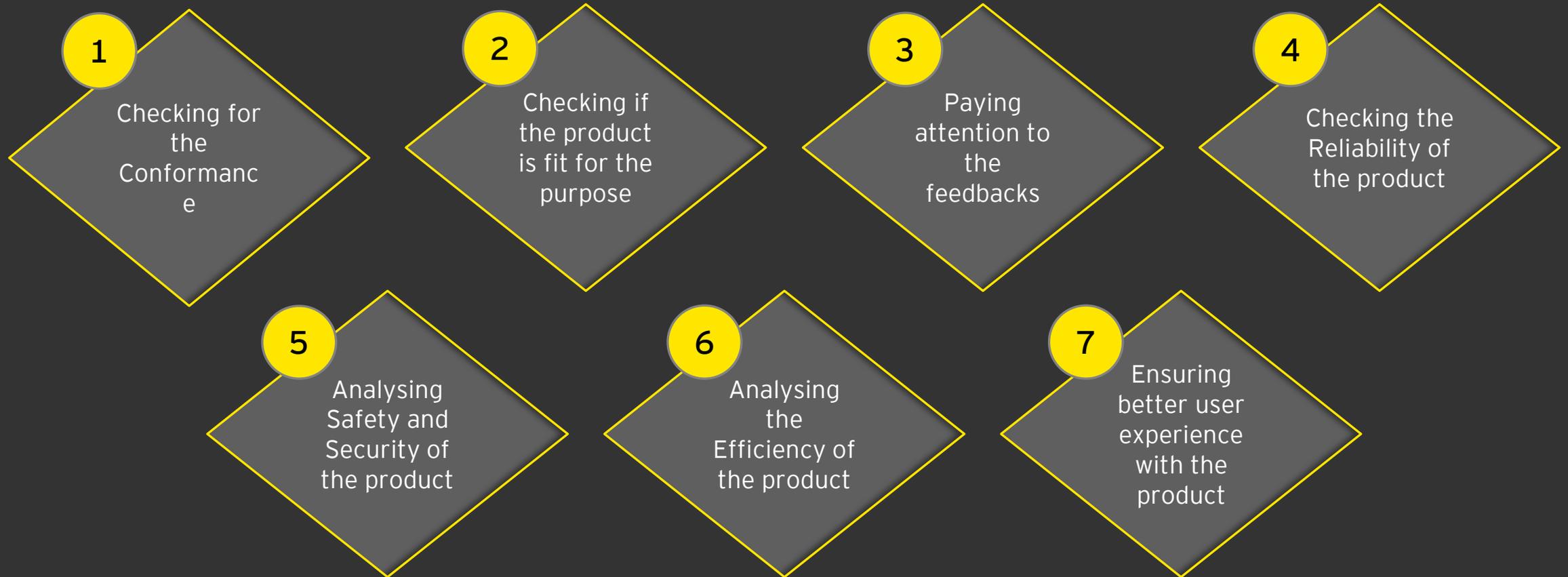
Build trust with your customers

Increase **profitability** of business

Reduce customer complaints and returns

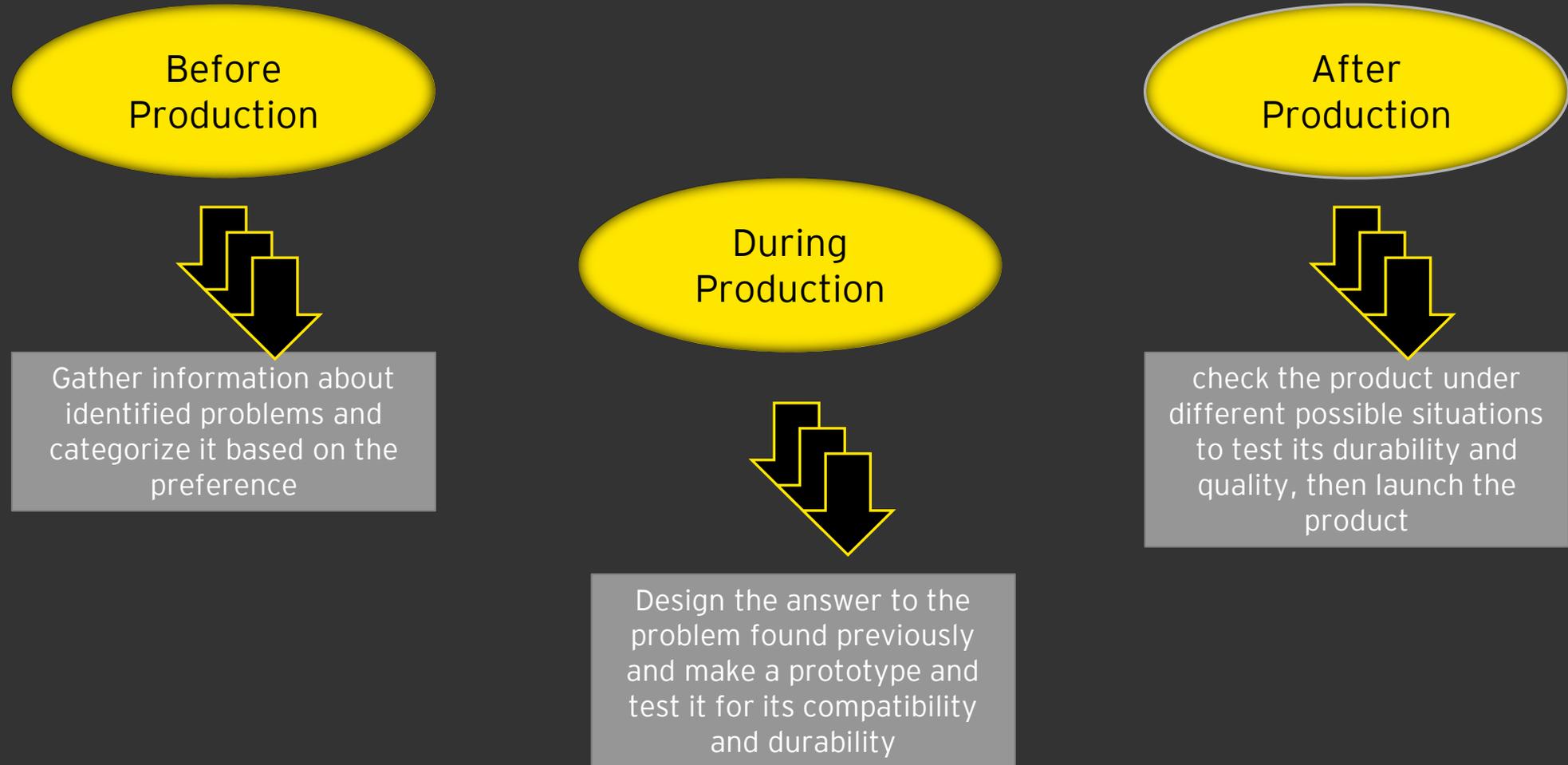
# Steps of Product Quality Management

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# How do you maintaining Product Quality throughout the production process?

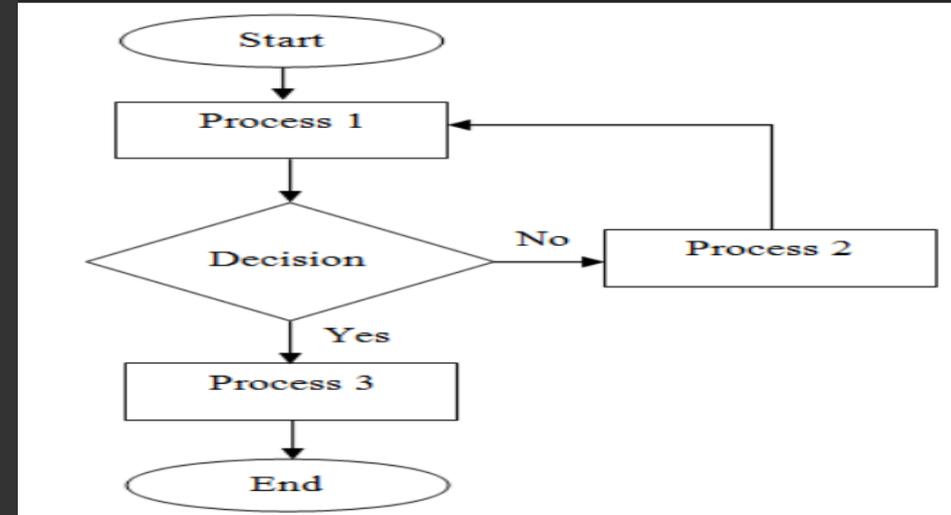
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# Quality Management Tools - Examples

## Flowchart

Flowcharts can be used to document work process flow. Flow-charting the steps of a process provides a picture of what the process looks like and can shed light on issues within the process. This tool is used when trying to determine where the bottlenecks or breakdowns are in work processes.



## Check Sheet

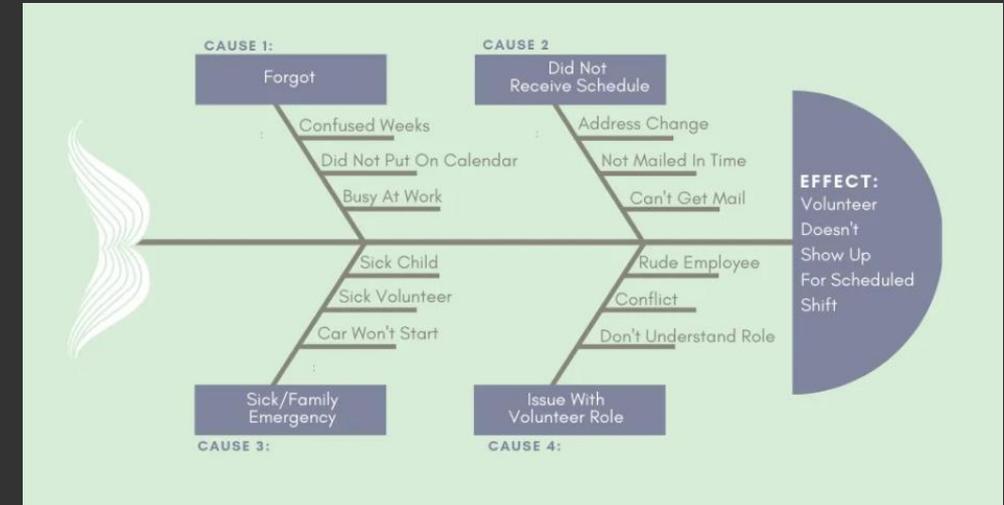
A check sheet is a basic quality tool that is used to collect data. A check sheet might be used to track the number of times a certain incident happens. It is practiced to guarantee that the essential pre-requisite has been developed and all the needed actions have been taken before production validation

Defect Types/ Event Occurrence	Dates							TOTAL
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
Supplied parts rusted								20
Misaligned weld								5
Improper test procedure								0
Wrong part issued								3
Film on parts								0
Voids in casting								6
Incorrect dimensions								2
Adhesive failure								0
Masking insufficient								1
Spray failure								5
<b>TOTAL</b>		10	13	10	5	4		

# Quality Management Tools - Examples

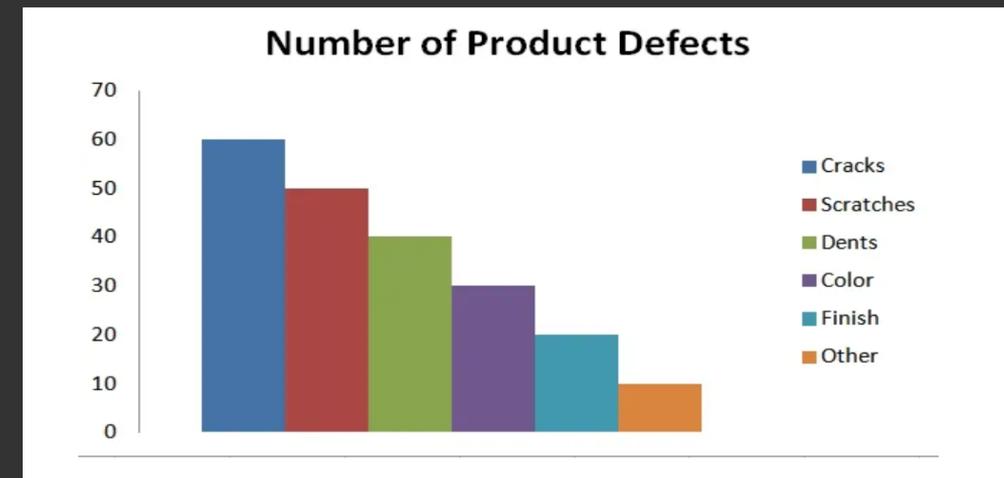
## Cause and Effect (fish bone) Diagram

It shows the many possible causes of a problem. To use this tool, you need to first identify the problem you are trying to solve. Next, list the major causes of the problem. Once all of the possible causes are identified, they can be used to develop an improvement plan to help resolve the identified problem



## Check Sheet

A Pareto chart is a bar graph of data showing the largest number of frequencies to the smallest. It can be used to the number of defects from the largest to the smallest occurrences, it is easy to see how to prioritize improvements efforts.





# 5 Customer Satisfaction Survey

# Creating a customer satisfaction survey to receive feedback on the quality of your product

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Identify your  
core goals

Stay focused

Be concise

Decide on a  
response  
structure

# Customer satisfaction survey | Types of questions to ask

## User behaviours

Getting a customer's self-assessment of their buying behaviours can give you more insight into your market and what motivates them.

## Demographics

Collecting demographic information can help you develop an understanding of who uses a product or service. This can help you identify a target market or notice gaps in your user base, allowing you to focus on under-served audiences.

## Recommendation

Recommendation questions ask about the likelihood that a customer would recommend a product, service or organization to a friend.

## Satisfaction

Having customers rate their satisfaction with different aspects of an experience is one of the quickest ways to get an idea of how well a company is meeting customer service expectations.

## Agent-specific

Agent-specific questions address a range of aspects related to a customer's interaction with a specific person. Can be used by SMEs with sales-agents, retail businesses, etc.

## Channel-specific

You can also ask questions that are focused on the channel that customers use to interact with a company. E.g. if your products are in different online selling platforms like Jumia etc.

# Examples of questions you can include in your customer survey

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- ▶ Which of the following words would you use to describe our product?
- ▶ How well does our product meet your needs?
- ▶ Which 3 features are the most valuable to you?
- ▶ What are the 3 most important features we're missing?
- ▶ If you could change just one thing about our product, what would it be?
- ▶ What problem would you like to solve with our product?
- ▶ Compared to our competitors, is our product quality better, worse, or about the same?
- ▶ Why did you choose our product rather than a competitor's?
- ▶ How responsive have we been to your questions or concerns about our products?
- ▶ On a scale from 0 to 10, how likely are you to recommend our company to a friend or colleague?
- ▶ How likely are you to buy again from us?
- ▶ What would you say to someone who asked about us?

# What are the Channels for Issuing Customer Surveys?

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Chatbots and messaging apps like  
Facebook, WhatsApp

**Best Suited for:** any business that is looking for a new intuitive way to reach users irrespective of the covered industry.

**Email surveys**

**Best Suited for:** almost any kind of business that maintains an active subscriber/customer list, and wants to measure brand sentiment.

**In-app surveys - pop-ups**

**Best Suited for:** companies with a strong digital presence, especially eCommerce or internet businesses, that have regular active users

**Text messages (SMS)**

**Best Suited for:** businesses that support transactions, offer deliveries or other personal services, for example banks, e-commerce stores, airlines, telecommunication providers, etc.

# What's Important to Investors

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- ▶ Effective production management practices
- ▶ Effective production planning and control
- ▶ Quality management practices
- ▶ The quality of your products and services, compared to your competitors
- ▶ Your product's ability to satisfy your customers
- ▶ Feedback from your clients

# Q & A

Kindly remember to  
complete the feedback  
form posted in the chat.  
Thank You!

