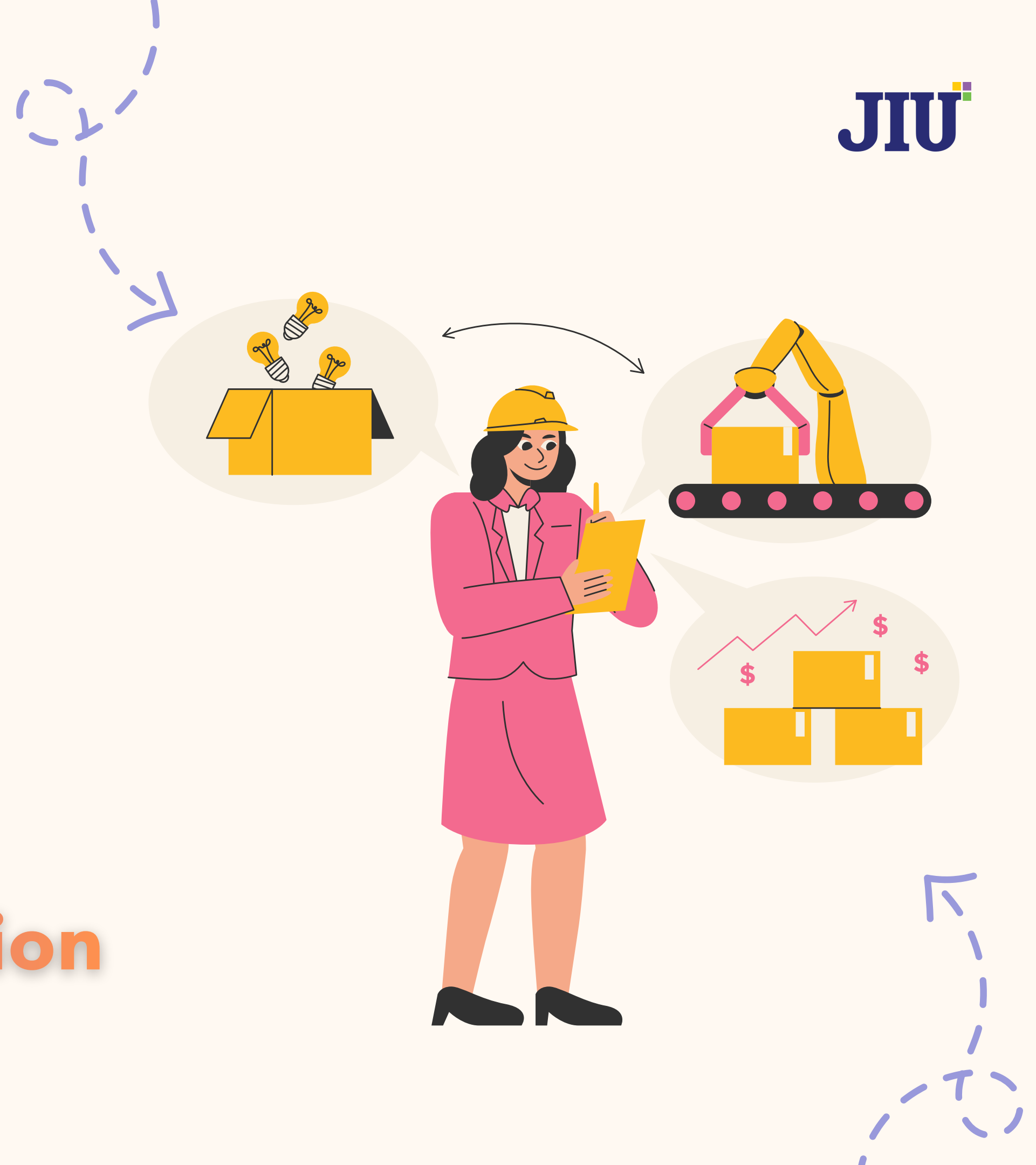


# Management Information System

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## 3. Business Process & Digital Transformation



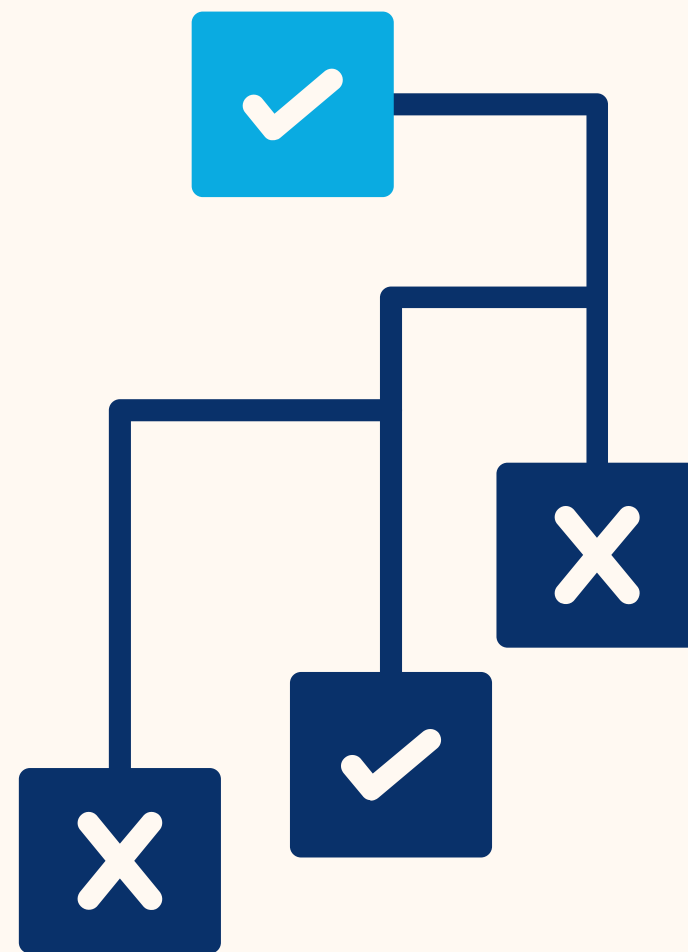
# Learning Objectives

By the end of this session, students should be able to:

- Define business process and business process management.
- Explain why business processes are important in organizations.
- Identify characteristics of efficient vs inefficient processes.
- Understand Business Process Reengineering (BPR).
- Explain digital transformation and its impact on organizations.
- Identify technologies enabling digital transformation.
- Analyze real-world digital transformation examples.



**Organizations do not operate through departments.  
They operate through processes.**





**Imagine you are working in a coffee shop**

**You are responsible for handling customer orders from the moment customers arrive until they receive their drinks.**

**What steps are involved from start to finish?**

# What Is a Business Process?

**Business Process** is a structured set of activities that transforms inputs into outputs through coordinated actions of people, rules, and information systems.



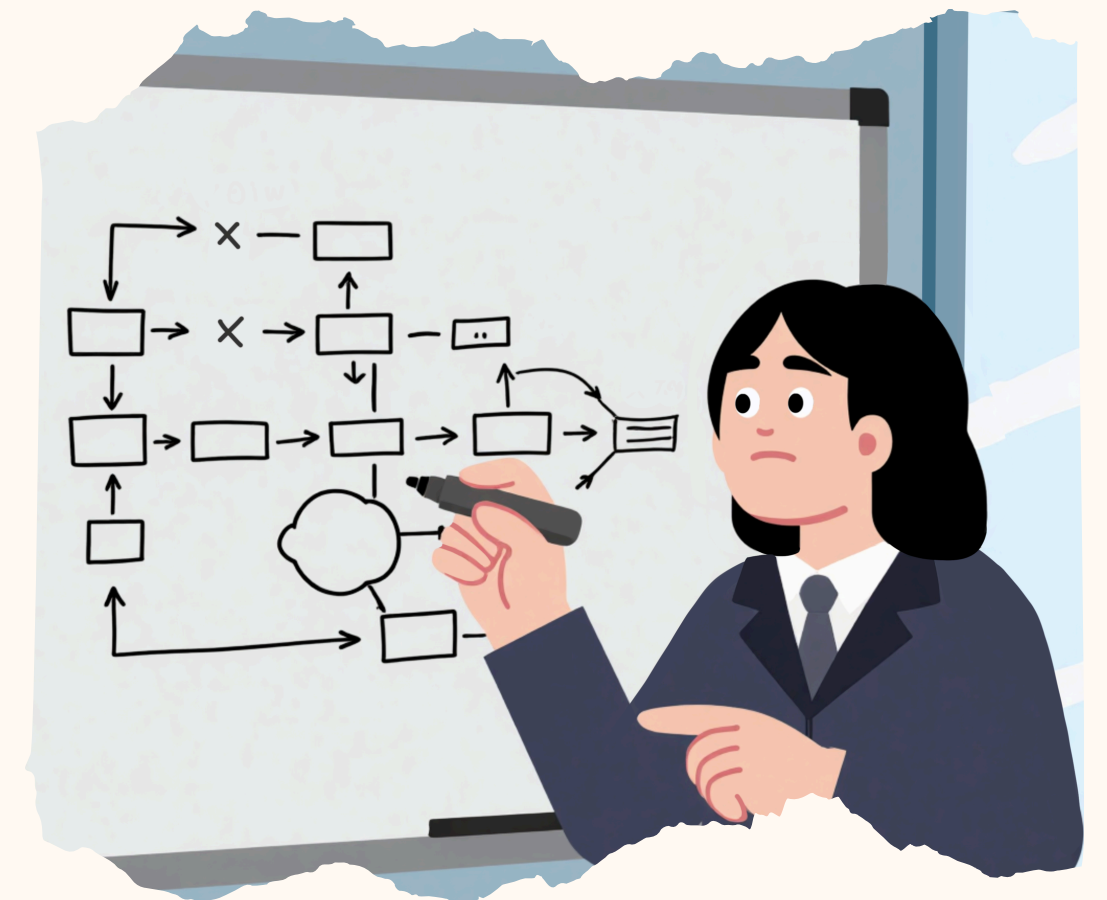
# What Is a Business Process?

**Business Process** is a set of logically related tasks performed to achieve a defined business outcome.

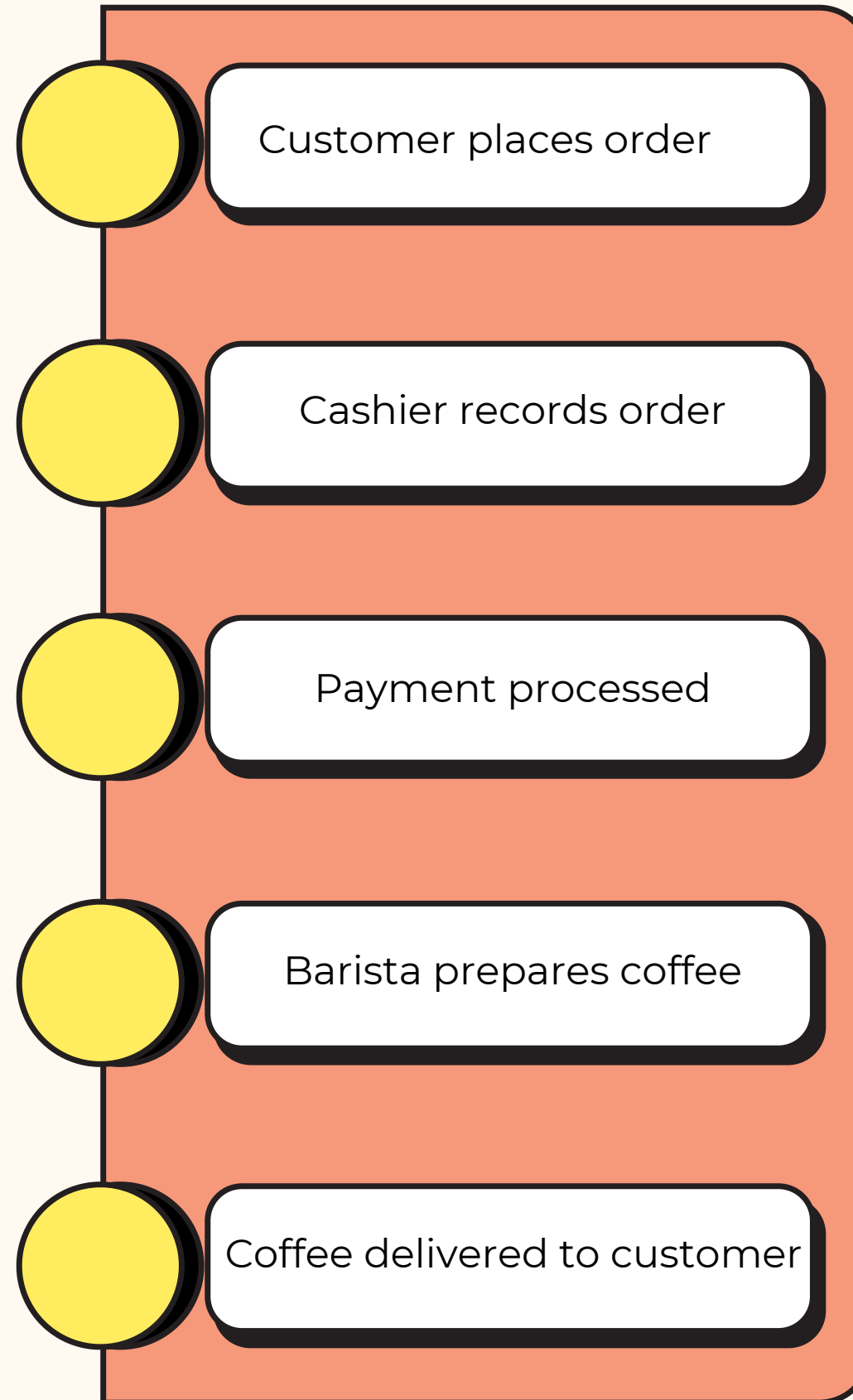


# Key characteristics:

- Have a **clear goal**
- Has a **beginning** and **an end**
- Involves **inputs** (data, materials)
- Produces **outputs** (products, services, information)
- Involves **people, rules,** and **technology**
- Create **value for customers**



# Example of a Simple Business Process



# Types of Business Processes

## Operational Processes

Day-to-day activities

### **Examples:**

- Course registration
- Payroll processing
- Order fulfillment



## Managerial Processes

Planning, monitoring, controlling

### **Examples:**

- Budget planning
- Performance evaluation
- Scheduling



## Supporting Processes

Enable core operations

### **Examples:**

- IT support
- Human resources
- Procurement



# Functional View vs Process View

## Traditional Functional View

- Organization is structured by specialized departments;
- Each department focuses on its own tasks.

**VS**

## Process View

- Focuses on the entire workflow that delivers value to customers.

**Customers care about the final result, not internal departments.**

# Process Thinking:

**Input** → **Transformation** → **Output**

- **Inputs**

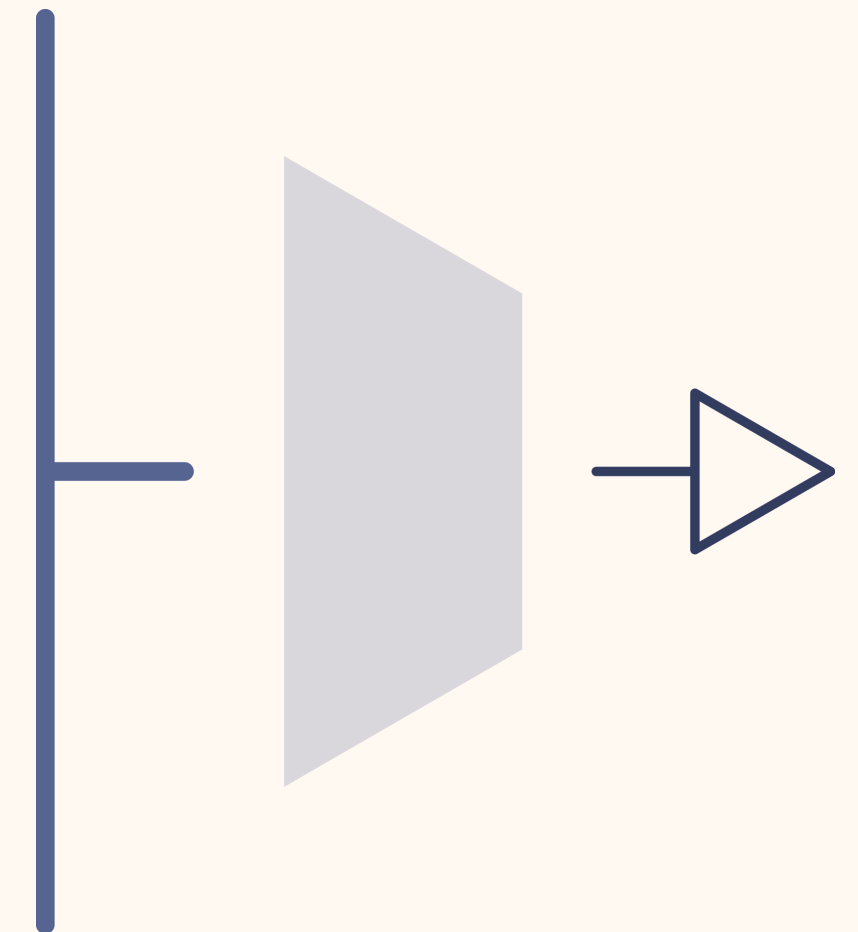
- Data, requests, materials, customer needs

- **Transformation**

- Decision rules, workflows, approvals, calculations

- **Outputs**

- Services, products, information, decisions





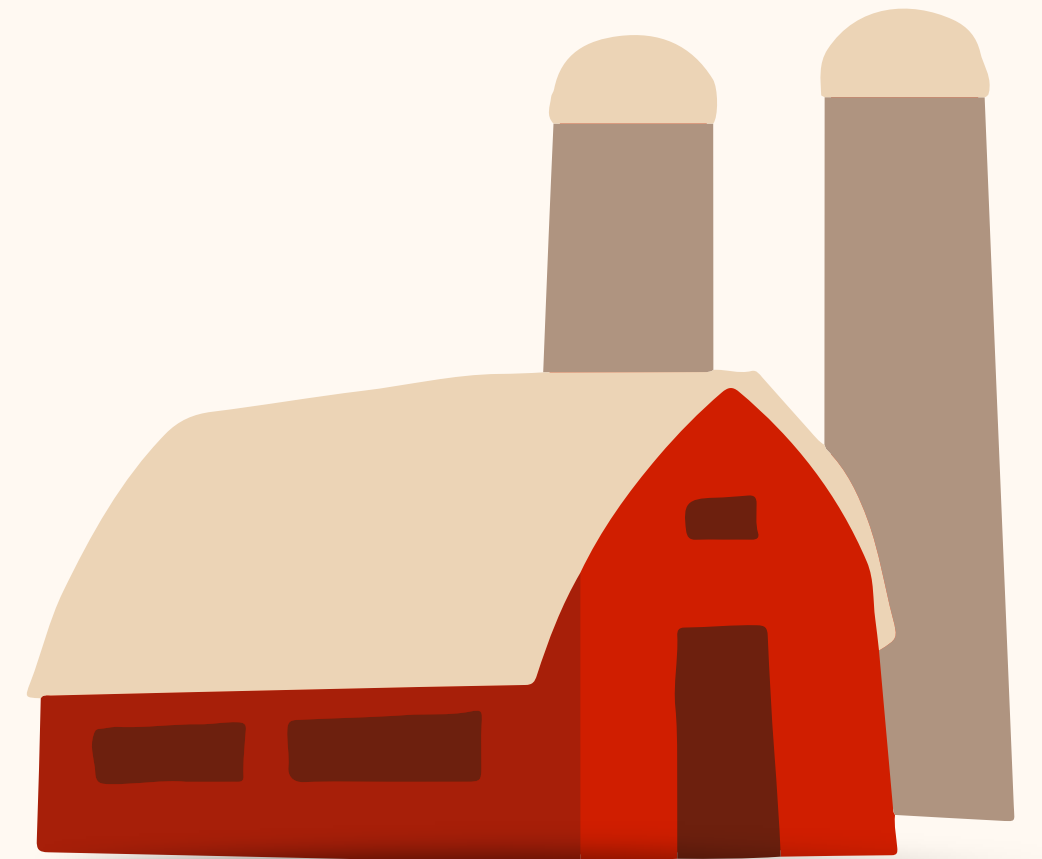
# Why Business Processes **Fail**?



# Functional Silos Problem

## What is a Silo?

- A silo occurs when departments do not share information effectively.
- Each department works independently with limited communication.



# Why Business Processes **Fail**?

## Problems Caused by Silos

- Fragmented data
- Duplicate data entry
- Manual handoffs
- Miscommunication
- Delayed information
- Inconsistent rules
- Lack of visibility
- Poor customer experience



# Example of Silo Problem

## Scenario: Customer Address Update

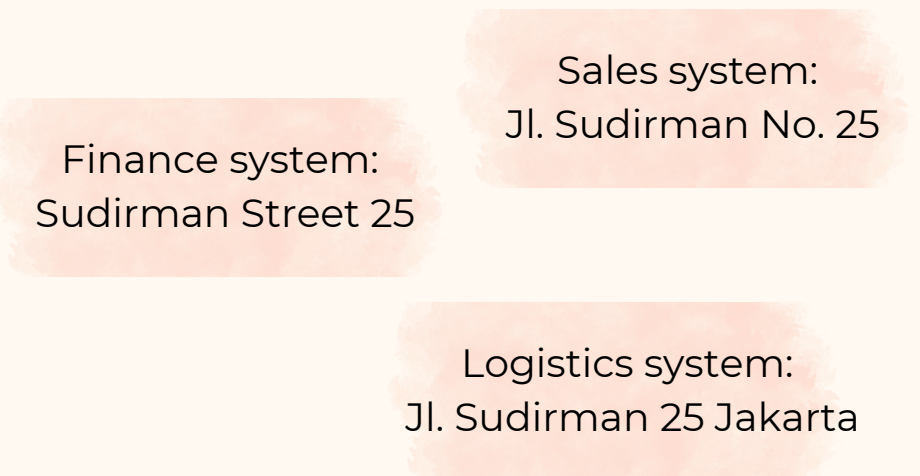
Customer changes address via customer service.

### **Problem:**

- Sales system updated
- Accounting system not updated
- The logistics system still uses the old address

### **Result:**

- Incorrect invoice
- Product delivered to the wrong location
- Additional cost for the company
- Poor customer satisfaction





**Poor Process = Inefficiency**

# Business Processes Improvement

**Information systems do not replace business processes —  
they support, automate, and improve them.**



# Business Processes & Information System

**EXAMPLE**

## Manual Course Registration

- Paper forms
- Long queues
- High error rate

**VS**

## With Information System

- Online registration
- Real-time validation
- Faster decision-making

Same process, better execution

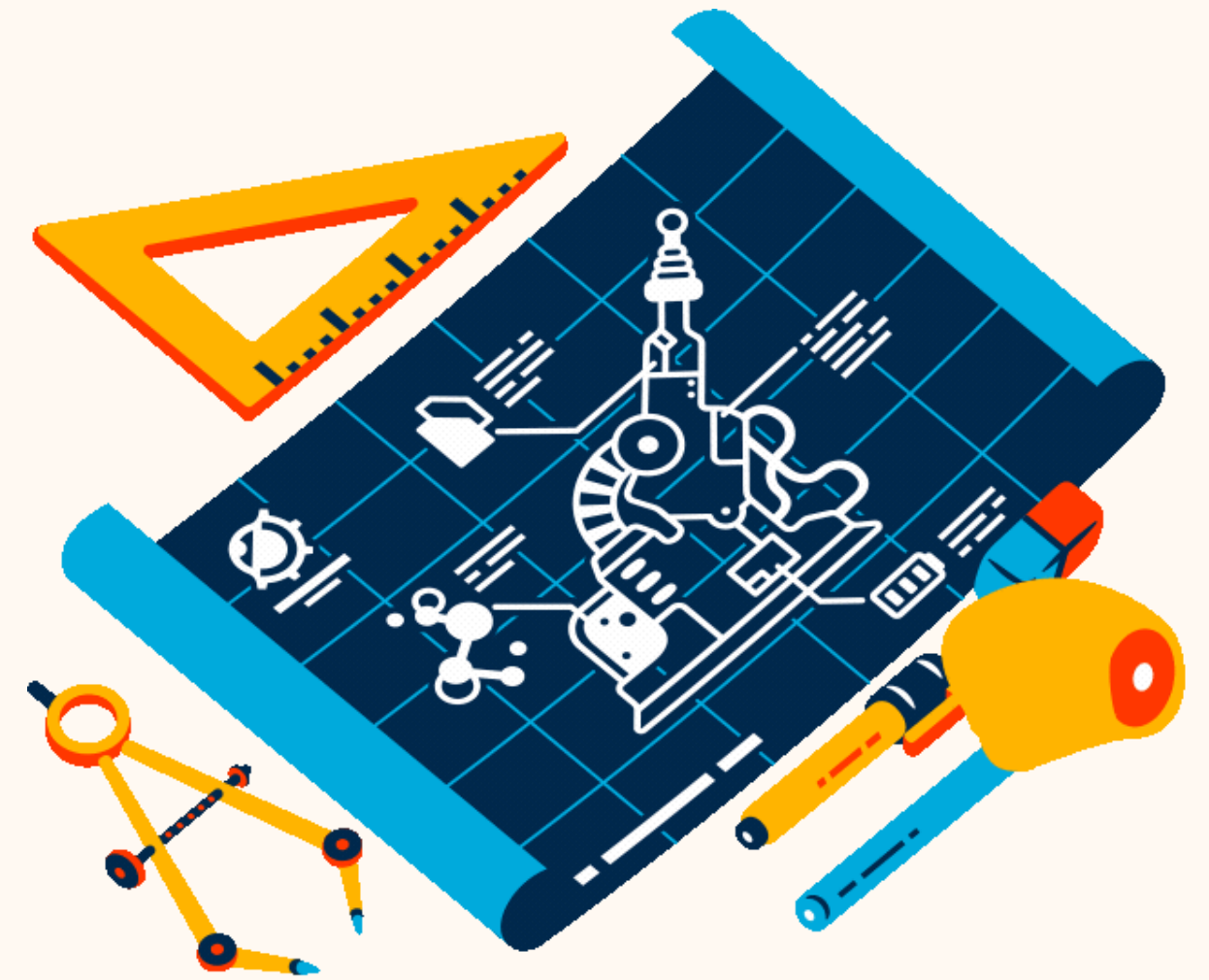
# Business Process Modeling

## What is Business Process Modeling?

Visual representation of business processes.

### Shows:

- sequence of activities
- decision points
- responsible departments
- information flow

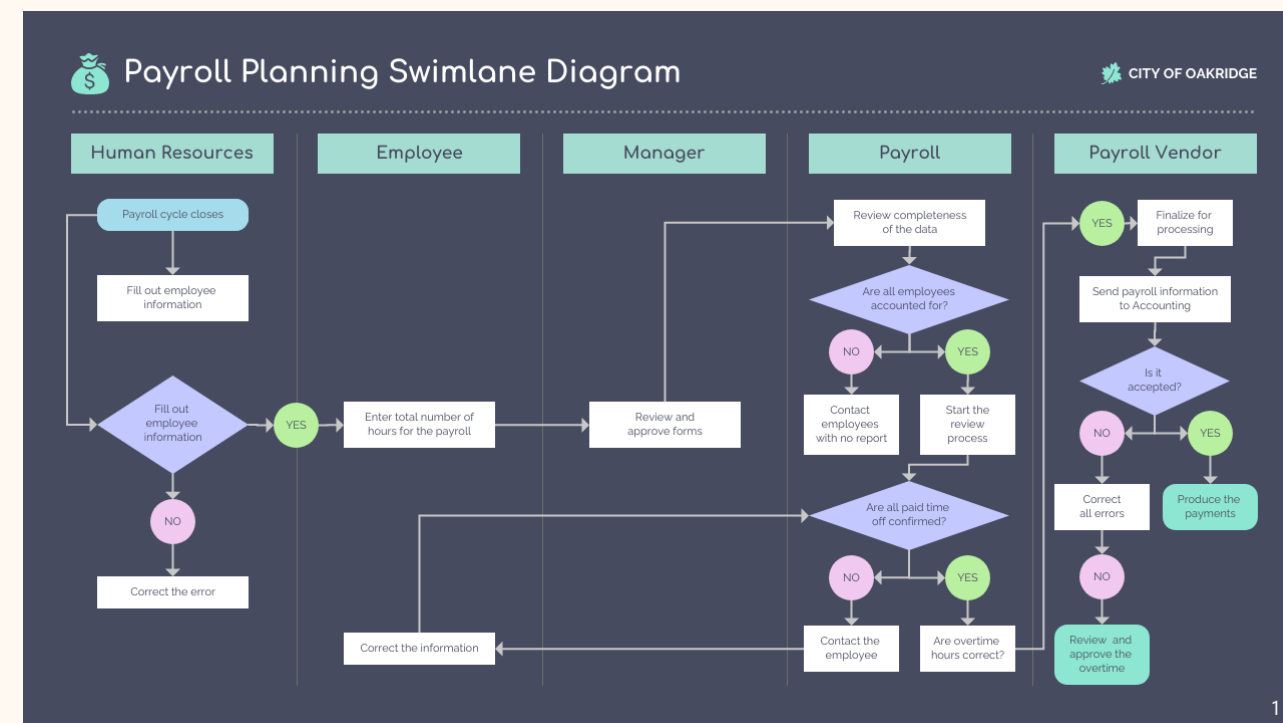
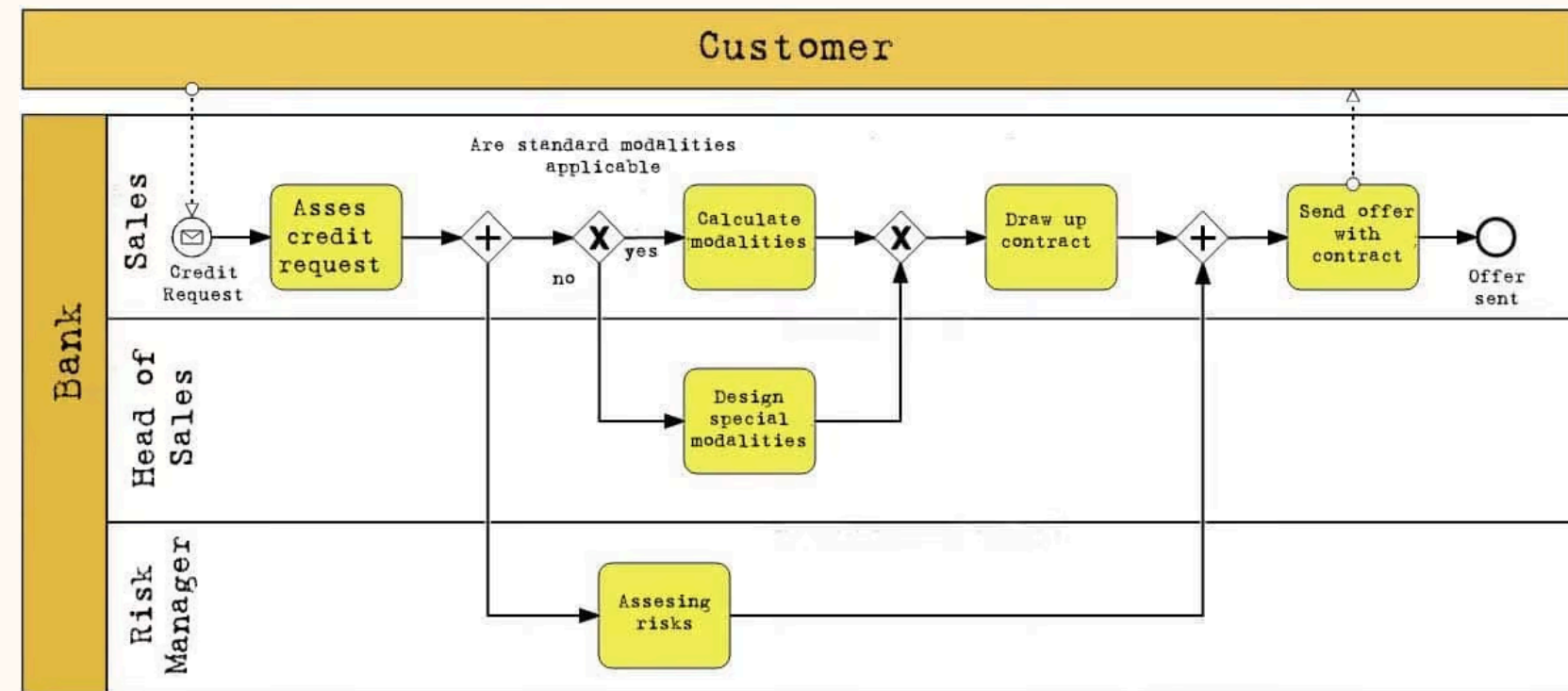
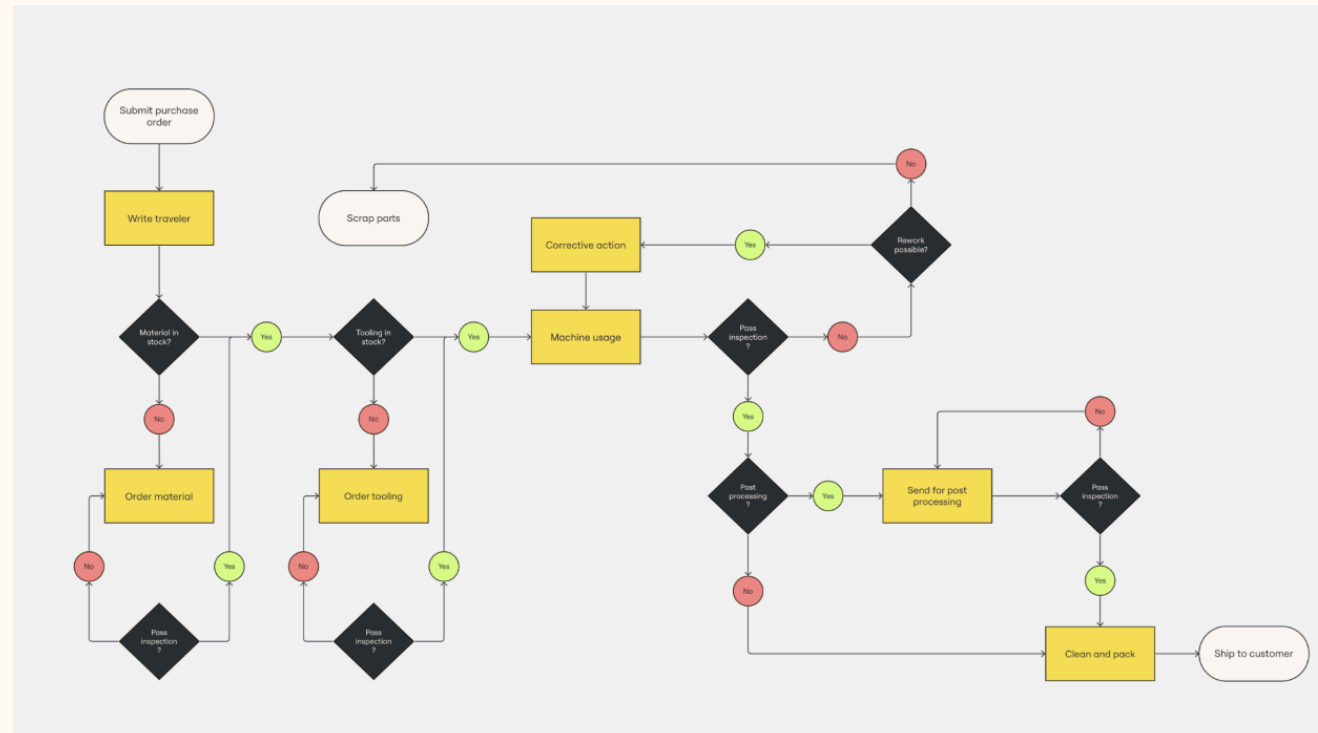


# Business Process Modeling

## Common Modeling Tools

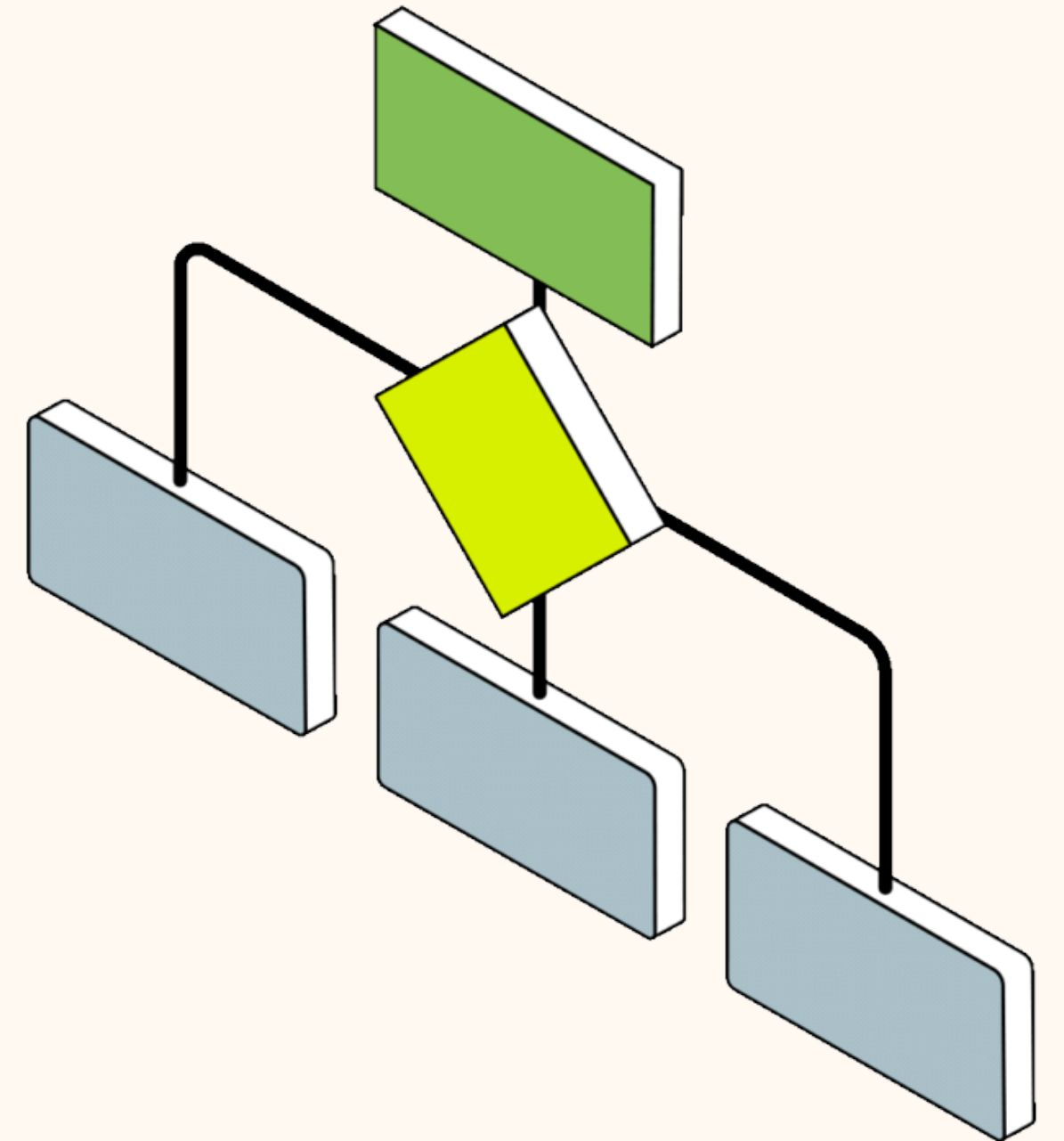
- **Flowchart:** a simple diagram using symbols.
- **BPMN (Business Process Model and Notation):** standard notation used in industry.
- **Swimlane diagram:** shows the responsibilities of each department.

# Business Process Modeling



# Benefits of BPM

- Easier to understand process
- Identify inefficiencies
- Improve communication
- Standardize workflow



# Business Process Management (BPM)

**Business Process Management (BPM)** is a structured approach to analyze and improve workflows.

BPM focuses on continuous improvement of processes.

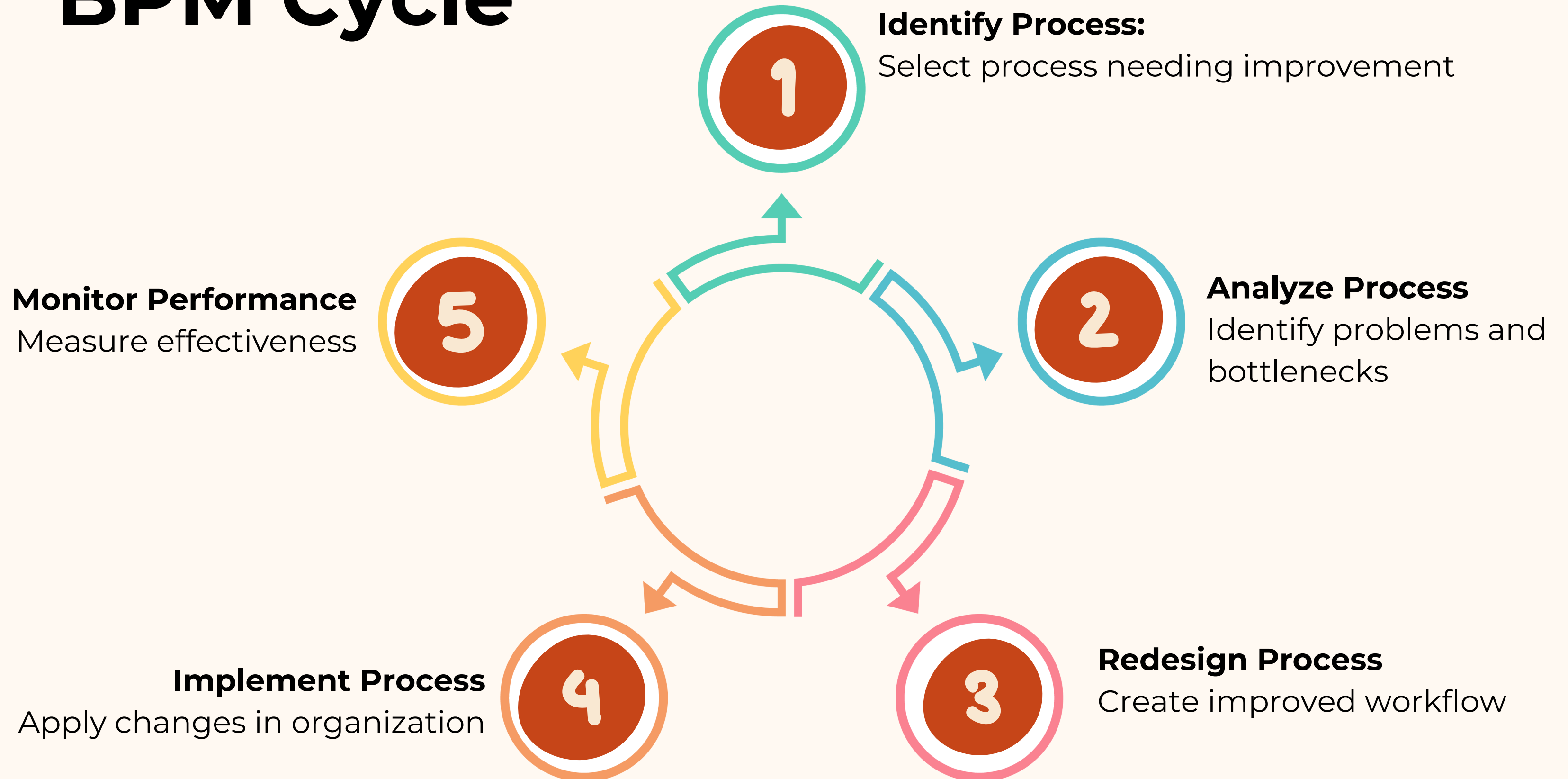
**Goal:** Improve efficiency, quality, and adaptability.

## **BPM involves:**

- identifying existing processes
- analyzing performance
- redesigning inefficient steps
- implementing improvements
- monitoring results



# BPM Cycle



# Business Process Reengineering (BPR)

**Business Process Reengineering (BPR)** involves radical redesign of processes.

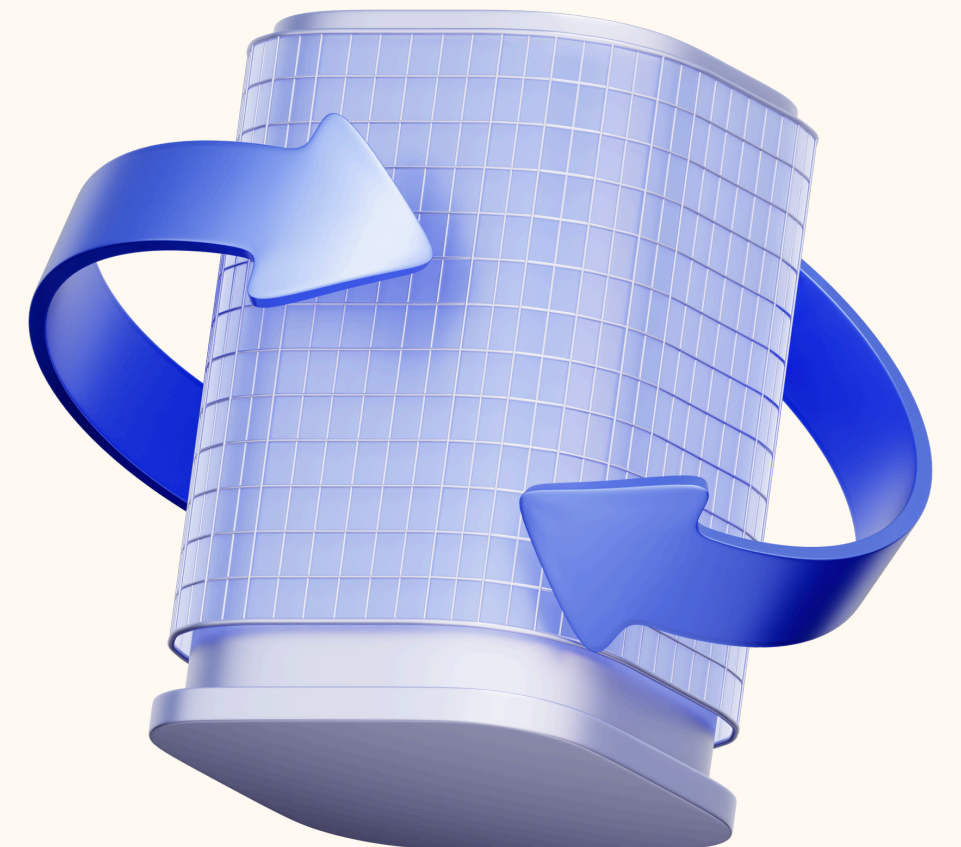
**Goal:** achieve dramatic performance improvement.

## Focus areas:

- speed
- cost reduction
- service quality
- innovation
- customer experience

## BPR asks:

“If we start from zero, how should this process be designed?”



# Example of BPR

## Loan Application Process

### TRADITIONAL

Customer must:

- fill physical forms
- submit documents
- wait for manual review
- Receive approval after several days

### AFTER BPR

- Customer applies online.
- System automatically checks eligibility.
- Digital document upload
- Approval within hours.

### RESULT

faster service  
lower operational cost  
better customer experience

# Risks of BPR

BPR is powerful but risky.

## Common reasons for failure:

- employee resistance to change
- lack of management support
- unclear project goals
- insufficient training
- poor communication
- lack of resources

## Important Lesson:

*Technology alone is not enough. People and culture must adapt.*



# From Process Improvement to Digital Transformation

## What Is Digital Transformation?

**Digital transformation** refers to the use of digital technologies to fundamentally change how organizations operate and deliver value.



It is not just:

- Using computers
- Buying new software



It is:

- Rethinking processes
- Changing workflows
- Changing decision-making

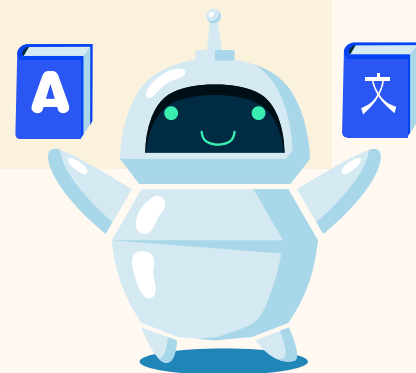
# From Digitization to Digital Transformation

## Process Automation Digitization

- Converting analog to digital
- Using systems to speed up existing processes.

*Example:*

- Online grade submission instead of paper.

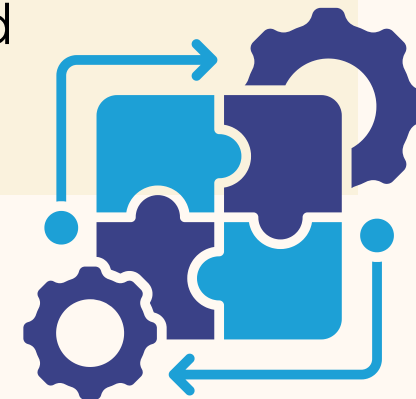


## Process Integration Digitalization

- Connecting multiple processes and departments.
- Improving existing workflows

*Example:*

- Academic system connected to finance & student portal.
- Automated approvals



## Digital Transformation

- Rethinking how work is done.
- New ways of operating and delivering value.

*Example:*

- Fully online universities
- Digital-only banks
- Self-service models
- Real-time tracking



**Digital transformation happens when organizations redesign processes around information—not around hierarchy.**

# Drivers of Digital Transformation

1. **Customer Expectations:** customers expect fast and convenient service.
  - example: same-day delivery
2. **Competition:** companies must innovate to stay competitive.
3. **Technology Innovation:** AI, mobile apps, and cloud computing enable new opportunities.
4. **Globalization:** global competition increases pressure.
5. **Pandemic Impact:** COVID-19 accelerated digital adoption.



# Technologies Enabling Digital Transformation

1. **Cloud Computing:** store and access data via the internet.
  - example: Google Drive
2. **Artificial Intelligence (AI):** machines perform tasks that require intelligence.
  - example: chatbot customer service
3. **Big Data Analytics:** Analyze a large volume of data.
  - example: customer behavior analysis
4. **Internet of Things (IoT):** connected devices share data.
  - example: smart home devices
5. **Mobile Technology:** apps provide service anytime, anywhere.



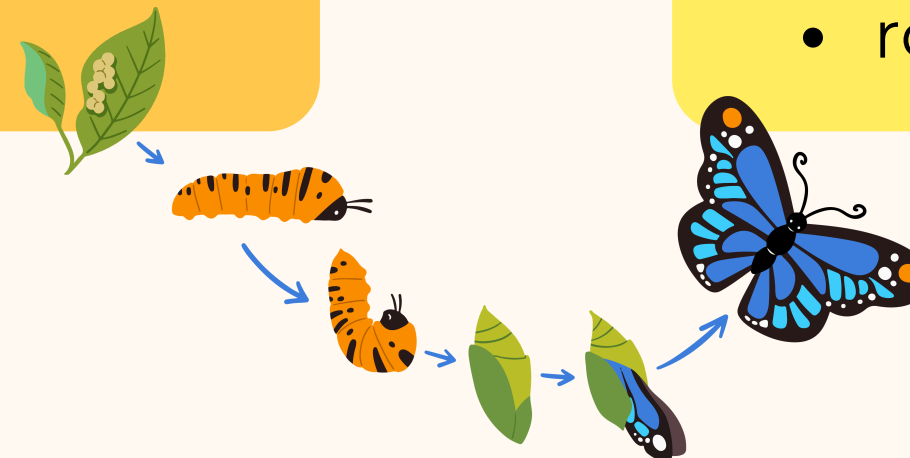
# Digital Transformation Example: Transportation

## TRADITIONAL TAXI:

- call center booking
- cash payment
- no real-time tracking

## RIDE-HAILING APPS:

- GPS tracking
- online payment
- driver rating
- estimated arrival time
- route optimization



**Improved transparency and convenience.**

# Digital Transformation Example in Indonesia



## **Gojek:**

digital platform for transportation, food delivery, payment.



## **Tokopedia / Shopee:**

online marketplace connecting buyers and sellers.



## **tiket.com:**

Online booking platform for travel and hotel.



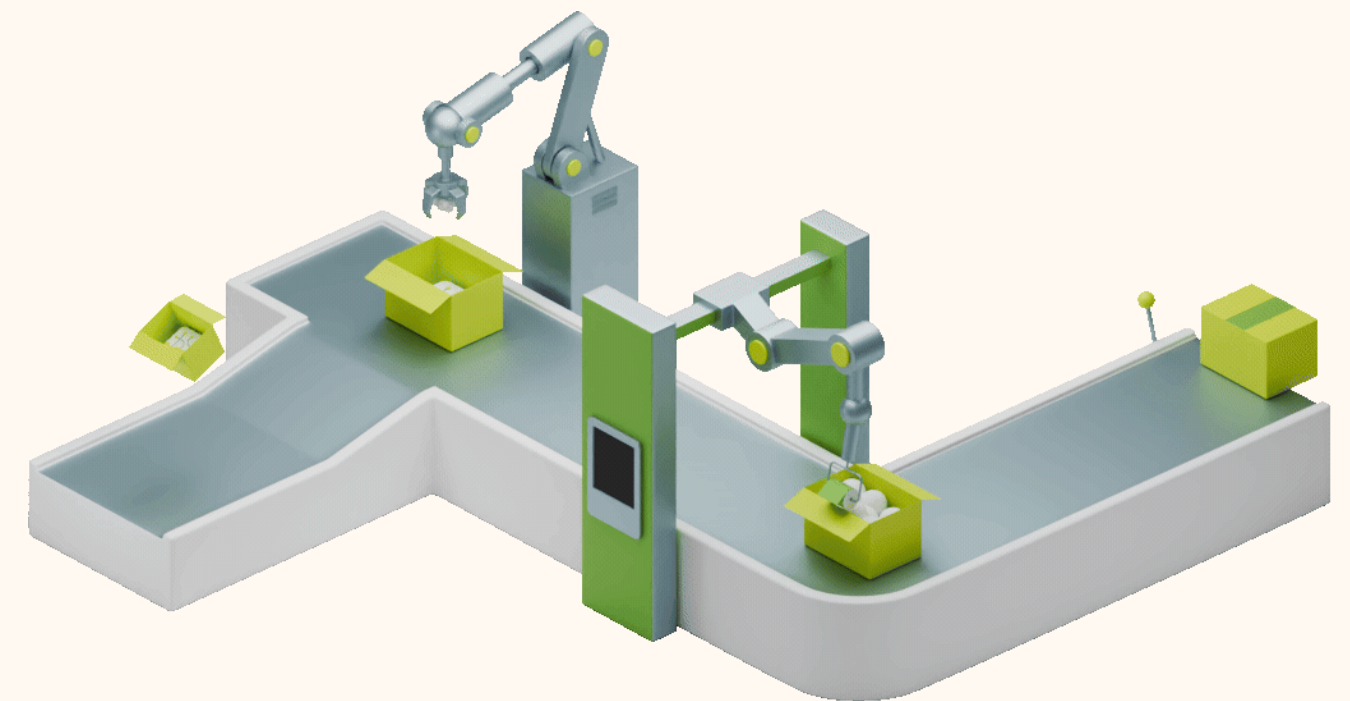
## **Mobile Banking (BCA, Mandiri):**

Transfer and payment via smartphone.

# Impact of Digital Transformation on Business Processes

## Digital transformation enables:

- **Automation of routine tasks** – reducing manual work
- **Integration** – connecting departments
- **Standardization** – consistent procedures
- **Speed & real-time data availability** – faster processing
- **Accuracy** – fewer errors
- Improved communication
- Faster decision-making
- Personalized customer experience



# Data Driven Organization

Modern organizations rely on data for decision making.

## Benefits of Data:

- understand customer behavior
- measure performance
- predict trends
- improve strategy
- identify problems quickly

## Example:

- Netflix recommends movies based on viewing history.



# Role of MIS in Business Processes

## **MIS supports business processes by:**

- collecting data
- processing information
- storing data securely
- providing reports
- supporting decision making

*MIS integrates departments and reduces silos.*

# Example: E-Commerce Order Process

**When customer places online order, system automatically:**

- records transaction
- checks inventory availability
- updates stock quantity
- processes payment
- sends confirmation email
- notifies warehouse
- arranges delivery



**Integrated systems improve speed and accuracy.**

# Benefits of Digital Transformation

## OPERATIONAL BENEFITS

- faster processes
- lower operational cost
- higher productivity

## STRATEGIC BENEFITS

- competitive advantage
- innovation opportunities
- better customer insights

## CUSTOMER BENEFITS

- convenience
- faster service
- personalized experience

# Challenges of Digital Transformation

- **Financial Challenges:** high implementation cost.
- **Technical Challenges:** system integration complexity.
- **Human Challenges:** employee resistance, lack of digital skills.
- **Risk Factors:** cybersecurity threats, data privacy concerns.

Digital transformation requires careful planning.

# Reflection Question

## **Think about daily activities:**

Which process has been digitally transformed?

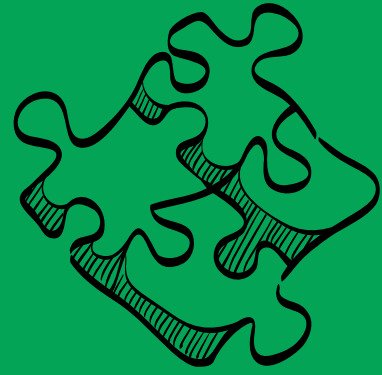
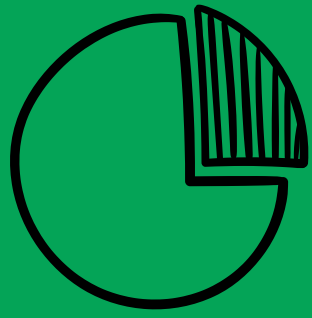
Examples:

- transportation
- communication
- shopping
- education

How does it affect your experience?

## **Key Takeaways:**

- A business process is a series of activities to achieve a business goal.
- Organizations must continuously improve processes.
- BPM helps optimize workflow.
- BPR involves radical redesign.
- Digital transformation changes how businesses operate.
- MIS supports process integration and decision-making.
- Organizations that redesign processes and adopt digital technology gain higher efficiency, better customer experience, and stronger competitiveness in Indonesia's digital economy



# Thankyou!



- Business Processes and Digital Transformation -

