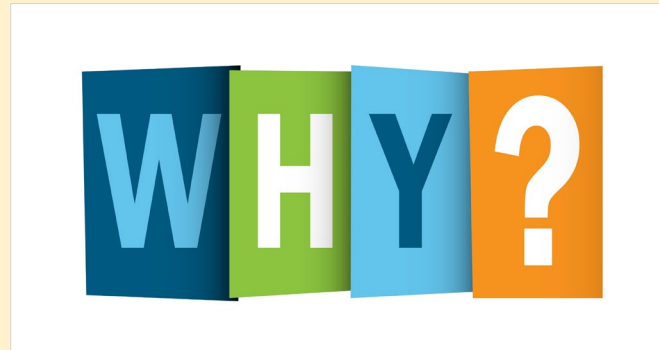


Lecture 1

Information Systems and Operations Management



Introduction to the Module

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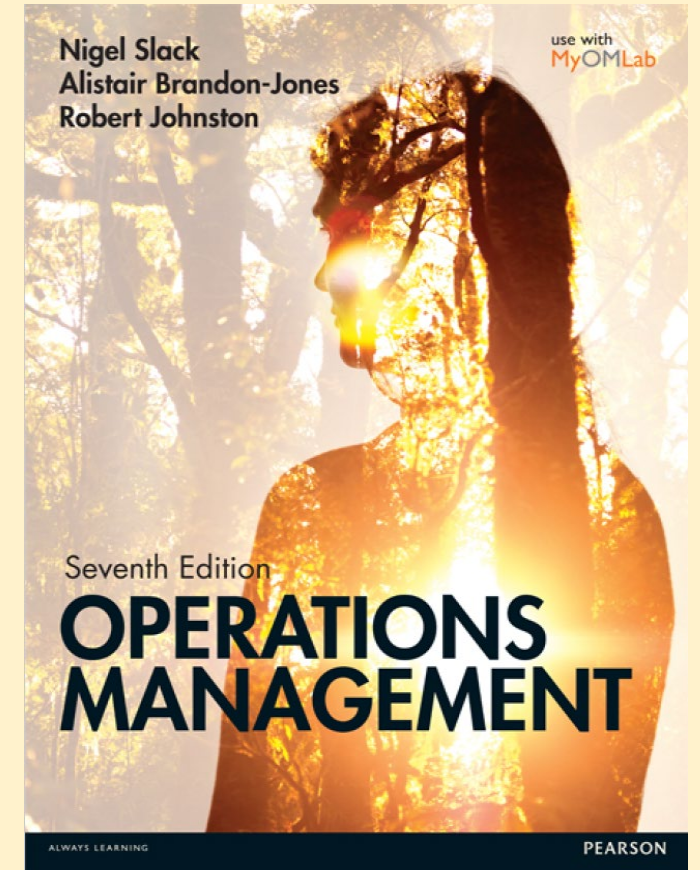
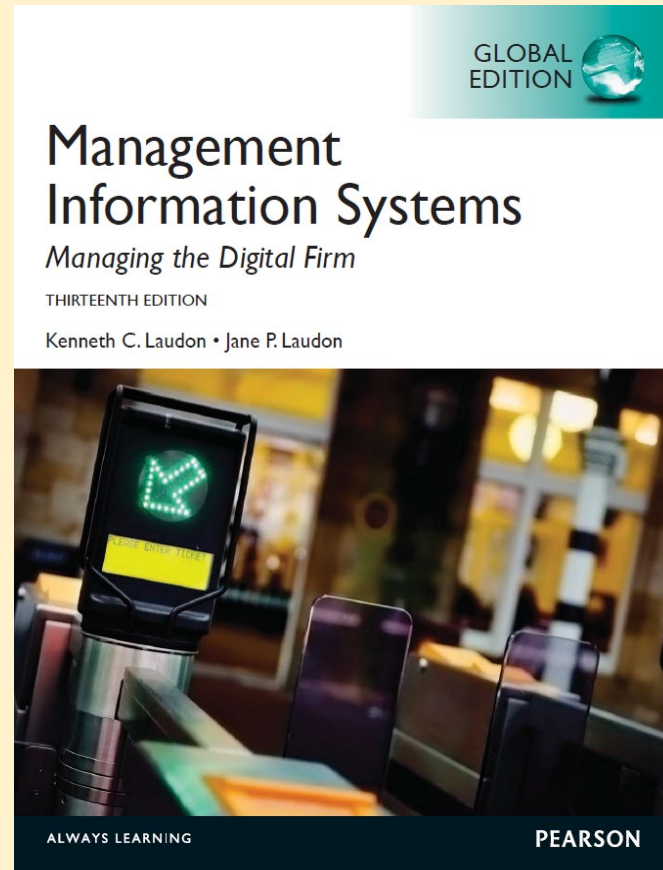
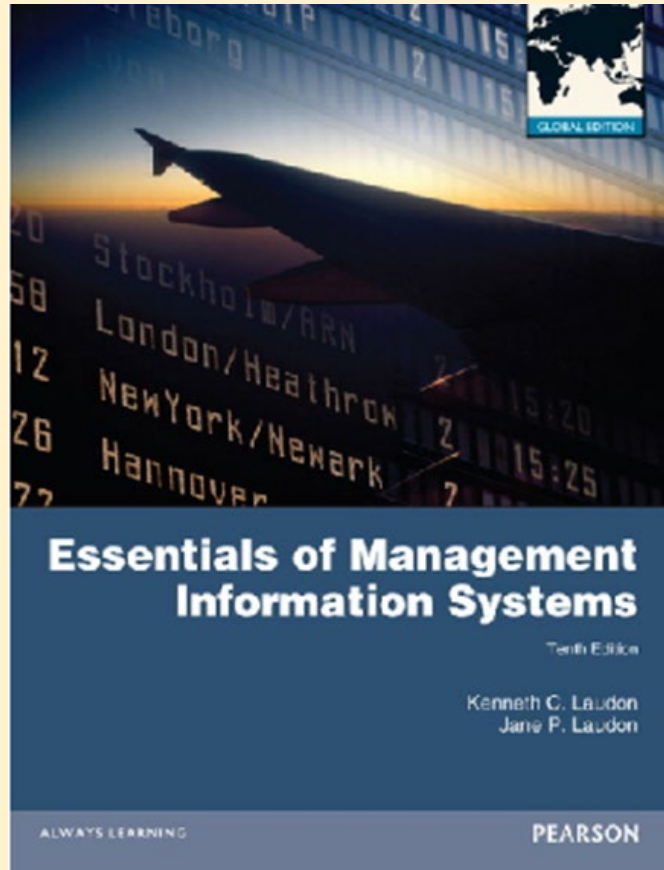
What is this module about?

- **Appreciating** that managing **operations processes and information management** as strategically important
- **Analyse** operations management processes **using key models** and evaluate the need for supporting information systems
- **Learn** the concepts of **database design in MS Access** to manage data and information for improved operations
- **Analyse** the different people; management and technology **issues that occur in operations management and use of systems**

Assessment: Group Presentation and Assignment

- There are two parts (details can be found on Canvas):
 1. Group Presentation based on assessment case study 25%
 2. Individual assessment 2000 words
Written assessment about operations and systems and their effect on people; management and technology 75%

Key Text



Why?

Queues at Disney World – operations problem

- What are your experiences of theme/amusement parks?
- Did you get to do everything you wanted to?
- Or did you spend too much time in the queue?
- **Problem: Long lines limit how many rides, shops, and restaurants a customer can visit during a stay.**



Solution: Disney Operational Command Centre

Disney launched their Operational Command Centre in 2010 to deal with these problems.

- It uses video cameras, digital park maps, computer programs, and mobile apps to monitor attendance, registers, and spot and prevent gridlock.
- When gridlock is spotted they can respond with their operations effectively and efficiently to improve the customer experience.

Sources: Brooks (2010); Simon (2011) and LineLogic.com (2012)



Trinidad- is it any different?



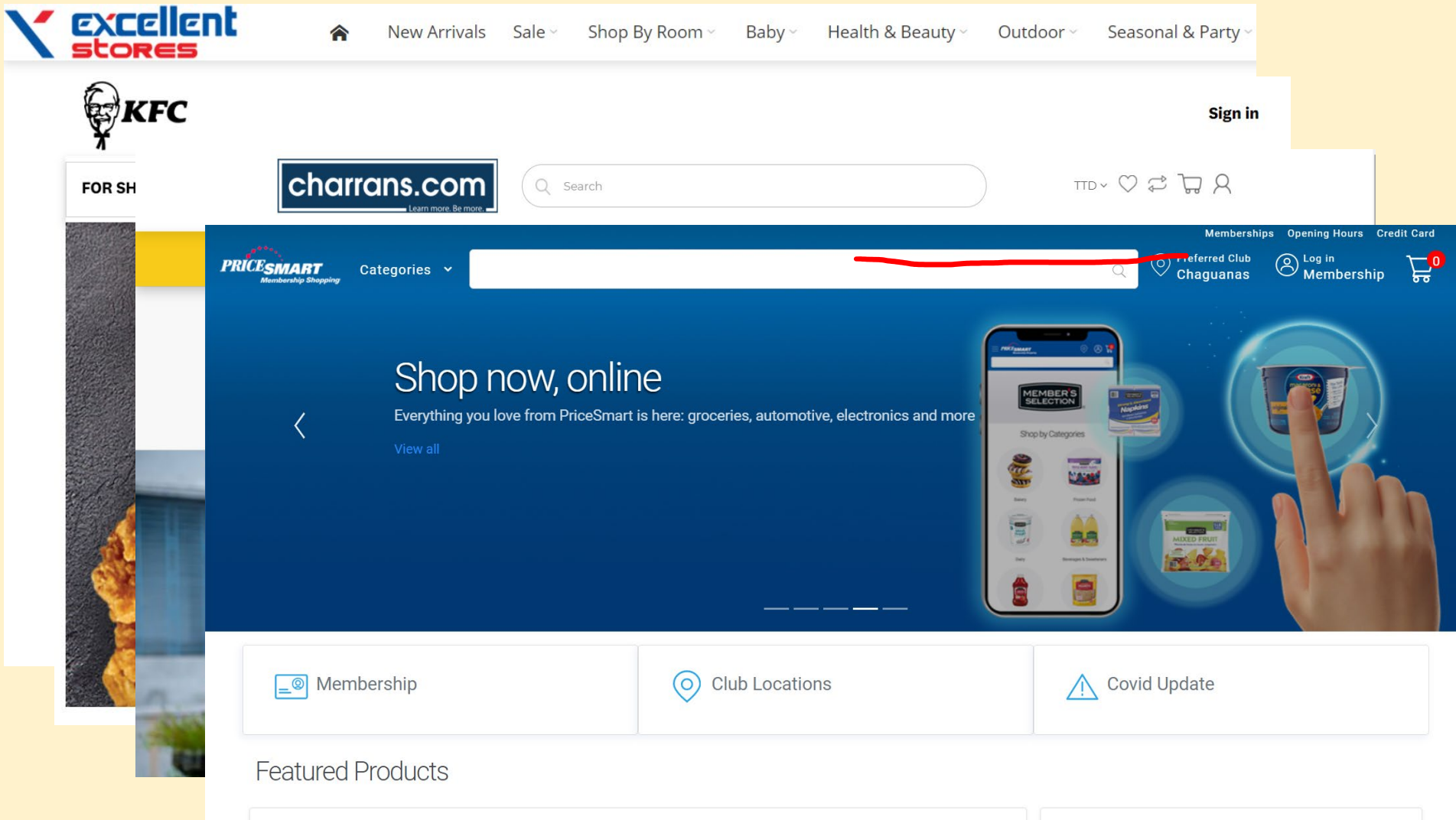
BUT then SARS-COV-2

AND

Problem Solved???



How have businesses transformed their Operations?



- Digital Transformation
- Pivot to Online Shopping
- Curb side pick-up
- Customer Sanitization Stations
- Social Distancing Queues
- Employee Safety Measures
- Covid 19-Safety Signage

Operations Management

What is Operations Management?

- “Operations management is the **activity of managing the resources which are devoted to the production and delivery of products and services.**” (Slack et al, 2013)



Key Operations Management Activities 1

- Understanding the needs of customers
- Using information about customers to make better decisions
- Exploiting technology to improve productivity
- Building quality into goods, services and processes to improve business performance

Key Operations Management Activities 2

- Ensuring material flows are coordinated from supplier to customer
- Creating a high-performance workplace through developing and motivating staff
- Continually learning from co-workers, competitors, customers, etc.

Secret Formula of Coca-Cola | National Geographic



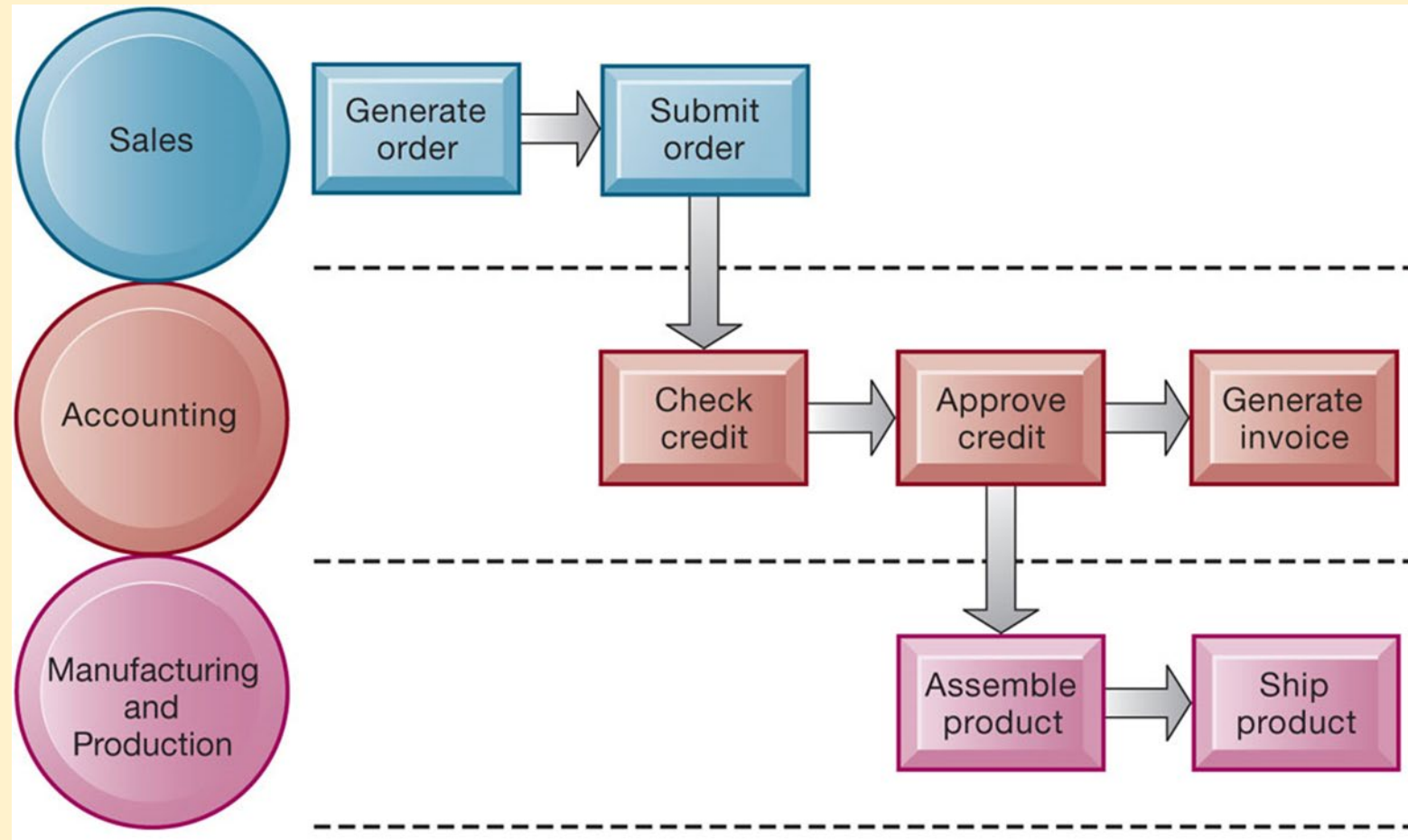
- The operations function is one of the three core functions of any organization.
- There are the **support functions** which enable the core functions to operate effectively:
 - the accounting and finance function,
 - the technical function,
 - the human resources function,
 - the information systems function



Laudon and Laudon (2013)

- Operations function as comprising **all the activities necessary** for the day-to-day fulfilment of customer requests.

Example: Order Fulfilment Process



Laudon and Laudon (2013)

Amazon tour: What happens after you place that order



<https://www.youtube.com/watch?v=wC4vITSVXoA>

Operations Management is Important to all Organizations



Source: Shutterstock/Evgeny Varlamov

Automobile assembly factory – *operations management uses machines to efficiently assemble products that satisfy current customer demands*



Source: Shutterstock/PT Images

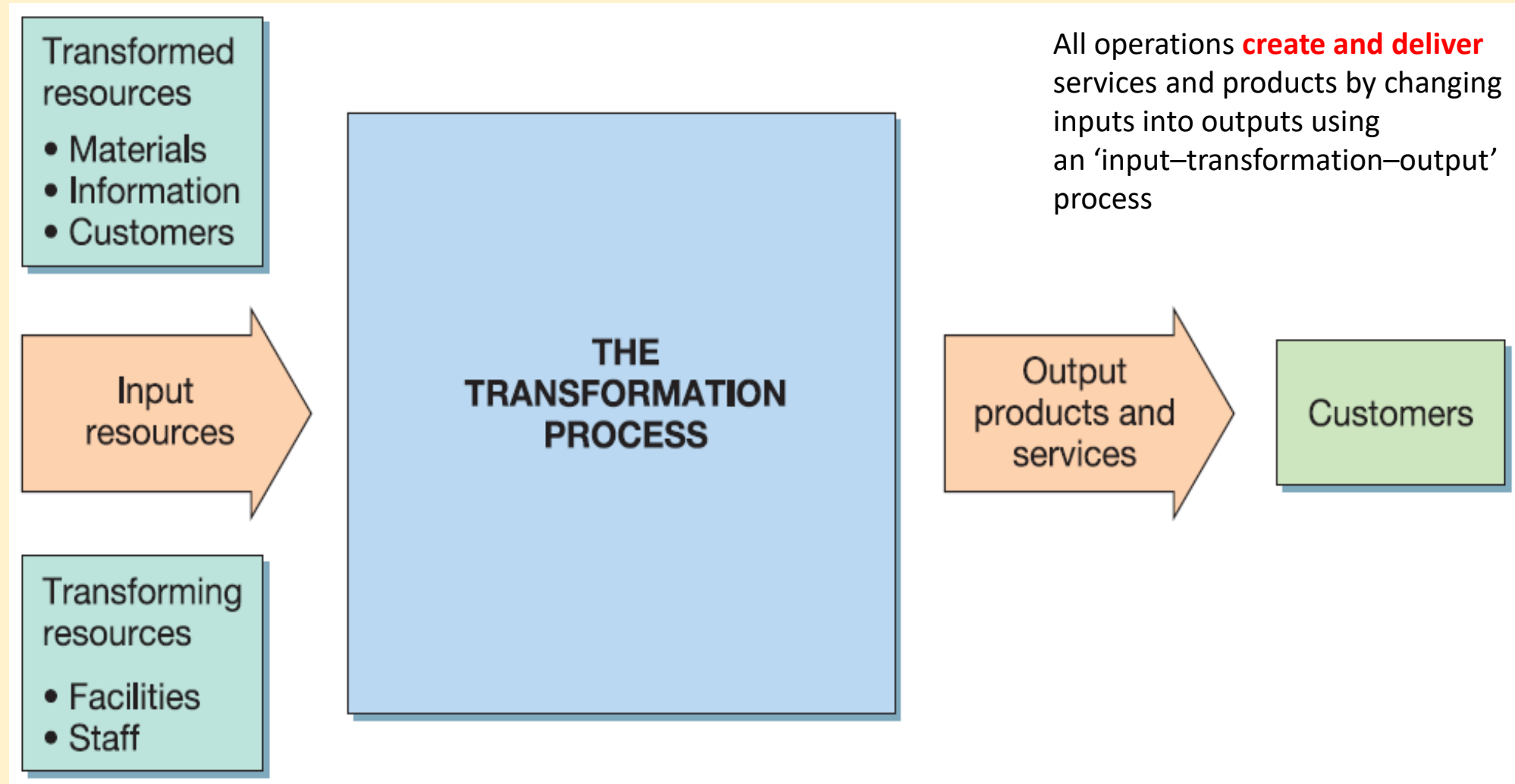
Physician (general practitioner) – *operations management uses knowledge to effectively diagnose conditions in order to treat real and perceived patient concerns*



Source: Shutterstock/Diego Cervo

Management consultant – *operations management uses people to effectively create the services that will address current and potential client needs*

Input-Transformation-Output Model



All operations **create and deliver** services and products by changing inputs into outputs using an 'input-transformation-output' process

Source: Slack et al (2011)

Levi Strauss & Co. Project F.L.X.



<https://www.youtube.com/watch?v=SMDIbNpE6dU>

Operations described in terms of their processes

<i>Operation</i>	<i>Some of the operation's inputs</i>	<i>Some of the operation's processes</i>	<i>Some of the operation's outputs</i>
Airline	Aircraft Pilots and air crew Ground crew Passengers and freight	Check passengers in Board passengers Fly passengers and freight around the world Care for passengers	Transported passengers and freight
Department store	Products for sale Sales staff Information systems Customers	Source and store products Display products Give sales advice Sell products	Customers and products 'assembled' together.
Police	Police officers Computer systems Information systems Public (law-abiding and criminals)	Crime prevention Crime detection Information gathering Detaining suspects	Lawful society, public with a feeling of security

Source: Slack et al (2011)

The IKEA Group - The Story of How We Work



https://www.youtube.com/watch?v=1jn2_nZrivQ

Input-Transformation-Output Model- IKEA

Input	Process	Output
<p>Transformed resources</p> <ul style="list-style-type: none"> • All items of furniture/ home ware: small basket items; flat pack items in the self-service warehouse; special items • Customers 	<p>Staff</p> <p>Restock warehouse and visual displays</p> <p>Display of furniture and development of good visual displays</p> <p>Answer queries</p> <p>Process financial transactions</p>	<p>Happy customers?!?</p> <p>Flat packs/assembled furniture taken to customer home</p>
<p>Transforming Resources</p> <ul style="list-style-type: none"> • Visual displays • Warehouses • Trolleys and equipment • Checkout equipment • Customers • Check out staff • Staff on information points 	<p>Customers</p> <p>Selection of furniture</p> <p>Design of configuration (e.g. a shelving system)</p> <p>Picking of items from the warehouse</p> <p>Transportation of items through the store</p> <p>Loading of items into car</p> <p>Delivery of items</p>	

Group Activity: Using Breakout Rooms

1. Summarize the Input-Process-Output model for **Pricemart:**
 - What are the inputs?
 - What processes take place in the store?
 - What are the outputs?
2. What is the role of the customer in the process whilst in the store?

Input-Transformation-Output Model- Pricemart

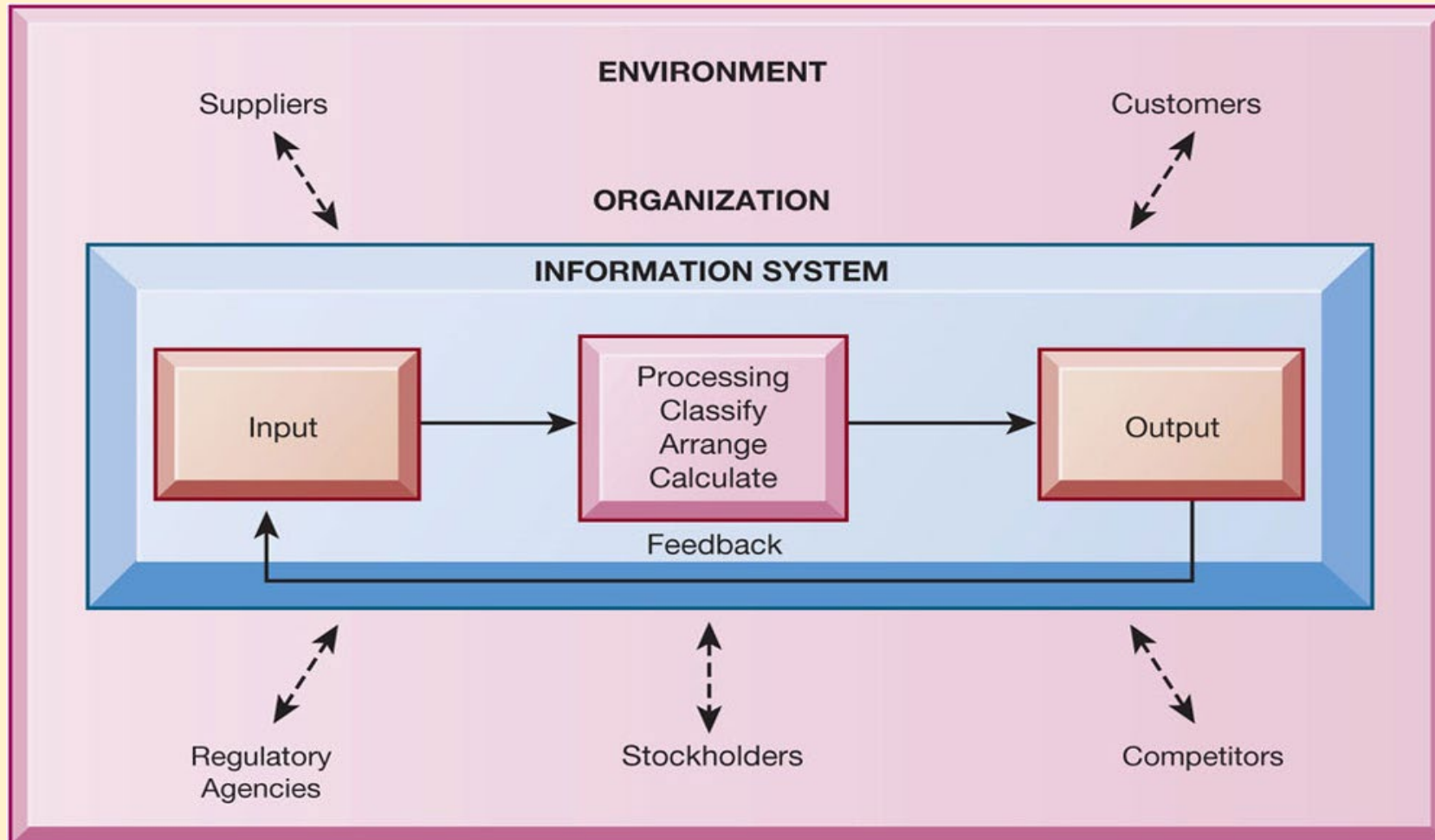
INPUTS	PROCESSES	OUTPUTS
Transformed Resources:		
Transforming Resources:		

Information Systems

What is an Information System?

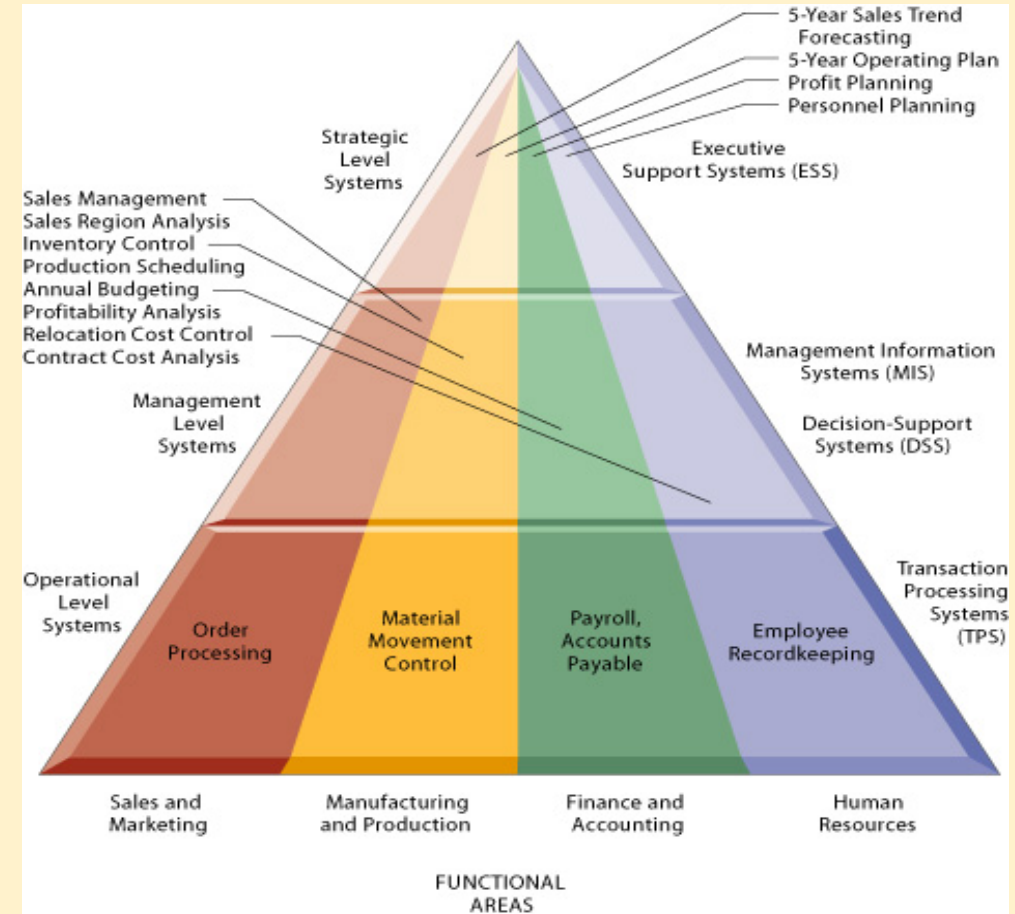
- Information Systems is “interrelated components that manage information to:
 - Support decision making and control
 - Help with analysis, visualization, and product creation (Laudon and Laudon, 2013)

Activities of IS: Input-Processing-Output Model



Laudon and Laudon (2013)

Types of Information Systems



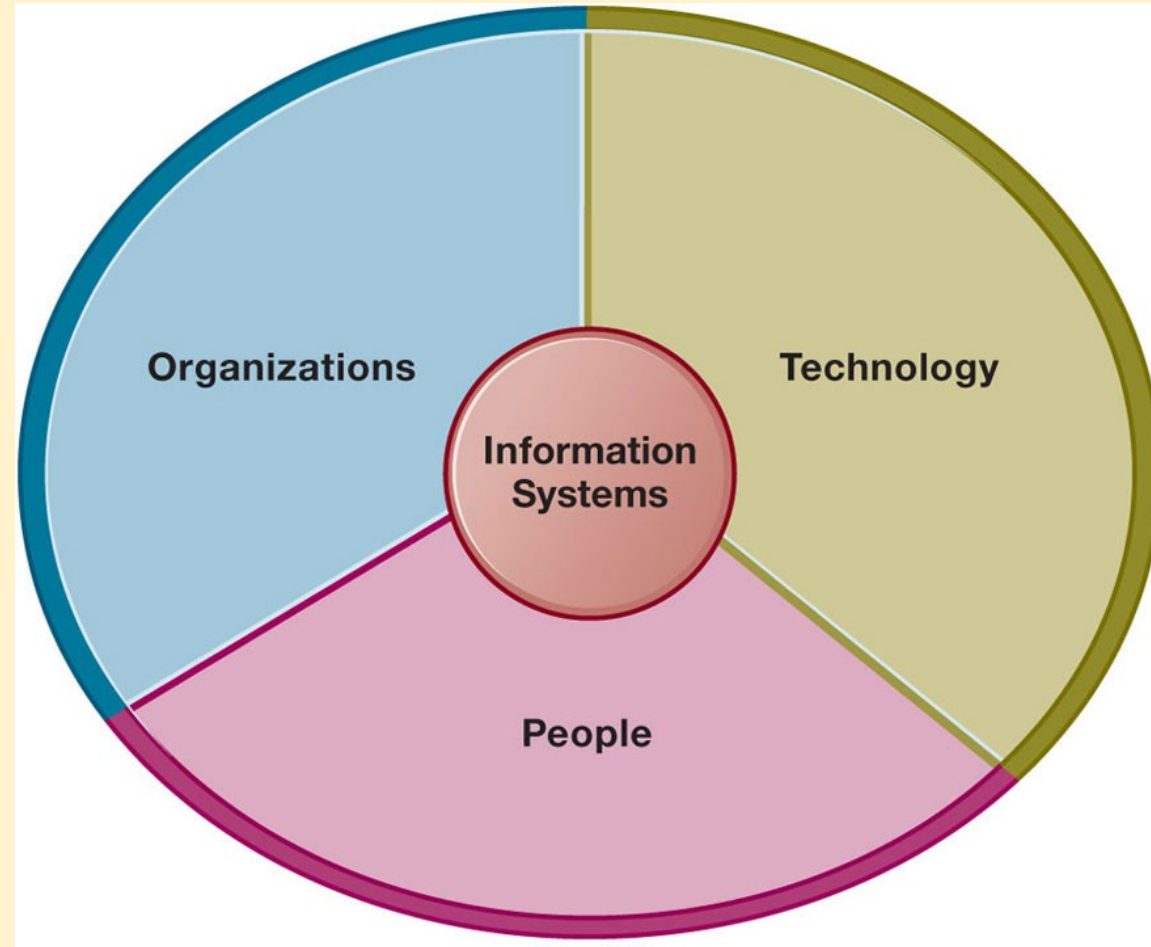
Laudon and Laudon (2006)

Walmart Information Technology



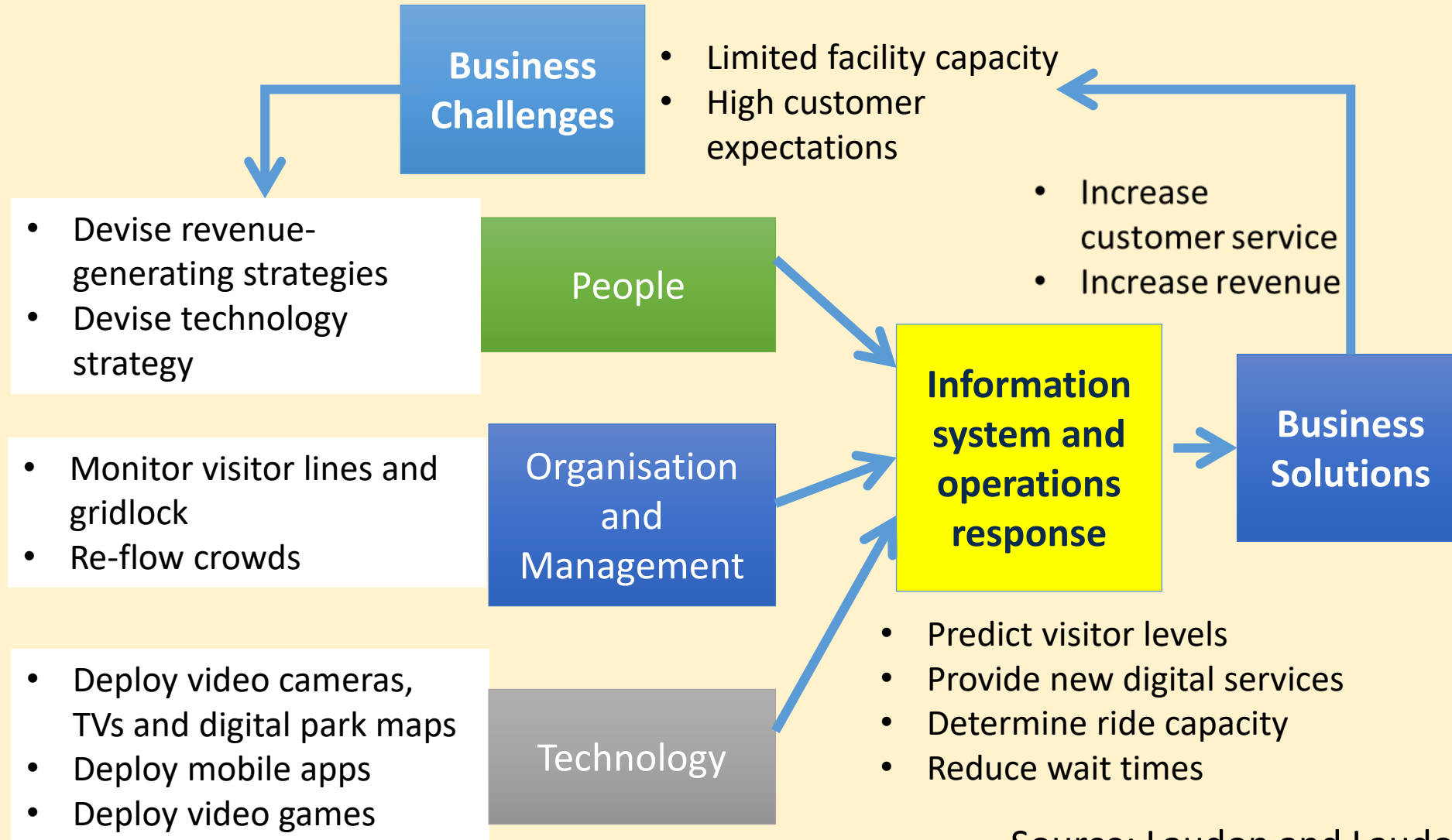
<https://www.youtube.com/watch?v=8GvcFpWuydY>

Key Elements of an Effective Information System



Laudon and Laudon (2013)

Applying these ideas to the Disney case



Source: Laudon and Laudon, 2013

Group Activity

1. Make a list of Information Systems that Pricemart is likely to use to support their operations:

- the inputs
- the processes that take place in the store
- the outputs

Business Drivers for IS

1. Achieve operational excellence: cost-efficiency; quality; flexibility; speed and reliability (Slack, 2011)
2. Develop new products, services, and business models
3. Increase customer loyalty and supplier intimacy through information sharing and collaboration
4. Improve decision making through real-time data access
5. Achieve competitive advantage (usually through 1-4)
6. Ensure survival by keeping up with competitors

Next Session

Next Topic: Information Systems, Organizations, and Strategy

- Evaluate the relationship between strategy; processes and information systems
- Define and apply the value chain model
- Describe the purpose of four cross functional/enterprise systems

Self Managed Learning

- Read:
 - Chapter 1- Operations Management
 - Chapter 1 and 2- Essentials of Information Systems

Group Formation

- Start the process of forming yourselves into groups
- Group Size: 3-5
- When groups are form, please complete the Group membership form
- [Group Membership Form.docx](#)

References

- Laudon, J. & Laudon, K. 2013. Essentials of management information systems. 10th ed. Boston: Pearson
- Laudon, K. C. & Laudon, J. P. 2014. Management information systems managing the digital firm. 13th ed. Boston: Pearson.
- Laudon, K. C. & Laudon, J. P. 2006. Management information systems managing the digital firm. 9th ed. Boston: Pearson
- Nigel, S., Alistair, B.J., Robert, J. 2013. Operations management. 7th ed. Harlow: Pearson.