Unit 34: Operations Management

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Learning Outcome 1

- LO1 Understand the nature and importance operations management
  - 1.1 Explain why operations management is important for organisation
  - 1.2 Analyse the operations functions organisation
  - 1.3 Evaluate, by using a process model, the operations management of a selected organisation

In this Session

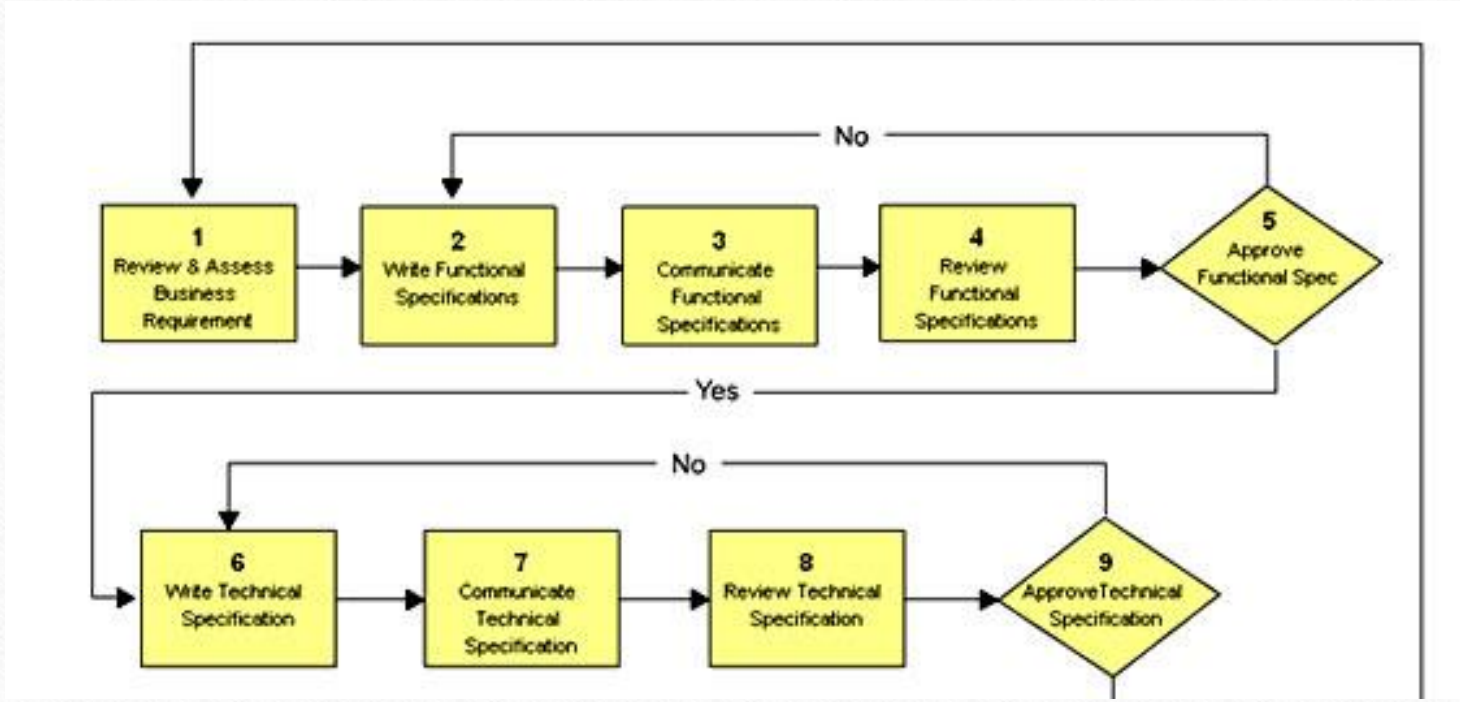
- AC 1.3 Evaluate, by using a process model, the operations management of a selected organisation:

- Further readings
- Review Questions
- References

Business Processing

- Business process modelling, often called process modelling, is the analytical representation or illustration of an organization's business processes.
- Along with business process discovery, process modelling is widely viewed as a critical component in successful business process management (BPM). It is used to map out an organization's current (or "as-is") processes to create a baseline for process improvements and to design future (or "to-be") processes with those improvements incorporated. Process modelling often uses Business Process Modelling Notation (BPMN), a standard method of illustrating processes with flowchart-like diagrams that can be easily understood by both IT and business managers.

Process Model Example



Purpose of Process Model

- Process models are used to lump processes of the same type into a model so that you can see how those processes can work together.
- It shows the activities organization typically performs and the kind of information it needs to successfully perform those activities, to transform inputs to goods and services.
- Better business process discovery and modelling lead to better business process management.

Business Process Model

- The term Business Process Model (also abbreviated to BPM) is the noun form of Business Process Modelling, and refers to a structural representation, description or diagram, which defines a specified flow of activities in a particular business or organisational unit (businessball.com, 2016).
- A business process model should define the following elements:

1. The goal of the process
2. Specific inputs and outputs
3. Consumed resources
4. Activities and the order in which they are performed
5. Significant events that drive or affect the process

Business Process Modelling

- The aim of modelling is to illustrate a complete process, enabling managers, consultants and staff to improve the flow and streamline the process.
- The outcomes of a business process modelling project are essentially:
  - value for the customer, and
  - reduced costs for the company,

  leading to increased profits.
- Other secondary consequences arising from successful Business Process Modelling can be increased competitive advantage, market growth, and better staff morale and retention.
- There are no absolute rules for the scope or extent of a Business Process Model in terms of departments and activities covered.

Adding Value for Customers

- Adding value for customers, whether internal or external customers, is at the centre of a Business Process Model. It starts with a customer need and ends with the satisfaction of that need. Unlike a workflow diagram, which is generally focused on departmental activities, a BPM spans departments and the whole organisation.
- **This point about customers being internal as well as external is crucial:**
- Staff are among the internal customers of modern right-minded organisations.
- If you approach Business Process Modelling purely from a systems and 'things' viewpoint with a fixation on costs and profitability, and squeezing every activity to its theoretical optimum, then people (notably staff) tend to get squeezed too.
- Organisations work well when people enjoy and support the processes that they are required to perform, and you will only add sustainable value for your customers, when you also add value for your staff too.
- Successful BPM added value for customers is self-sustaining because for staff it contains the magical WIIFM element - (What's In It For Me).

Example - BPM added value

An example could be the actions involved in processing a customer order from an internet-based mail order company.

- Starting with a customer placing an order **(the customer need)**
- send IT-based information to the warehouse
- stock picking
- packing and recording
- sending the appropriate IT-based information to the distribution hub
- sending IT-based information to the accounts department
- generation of an invoice
- allocation and organisation of shipment for the vehicle drivers
- delivery of the item and invoicing **(the customer need fulfilled).**
- This is a simple 'high-level' example. In practice each part or sub-process (for example, stock-picking) may require a 'low-level' BPM of its own.

Process Hierarchy

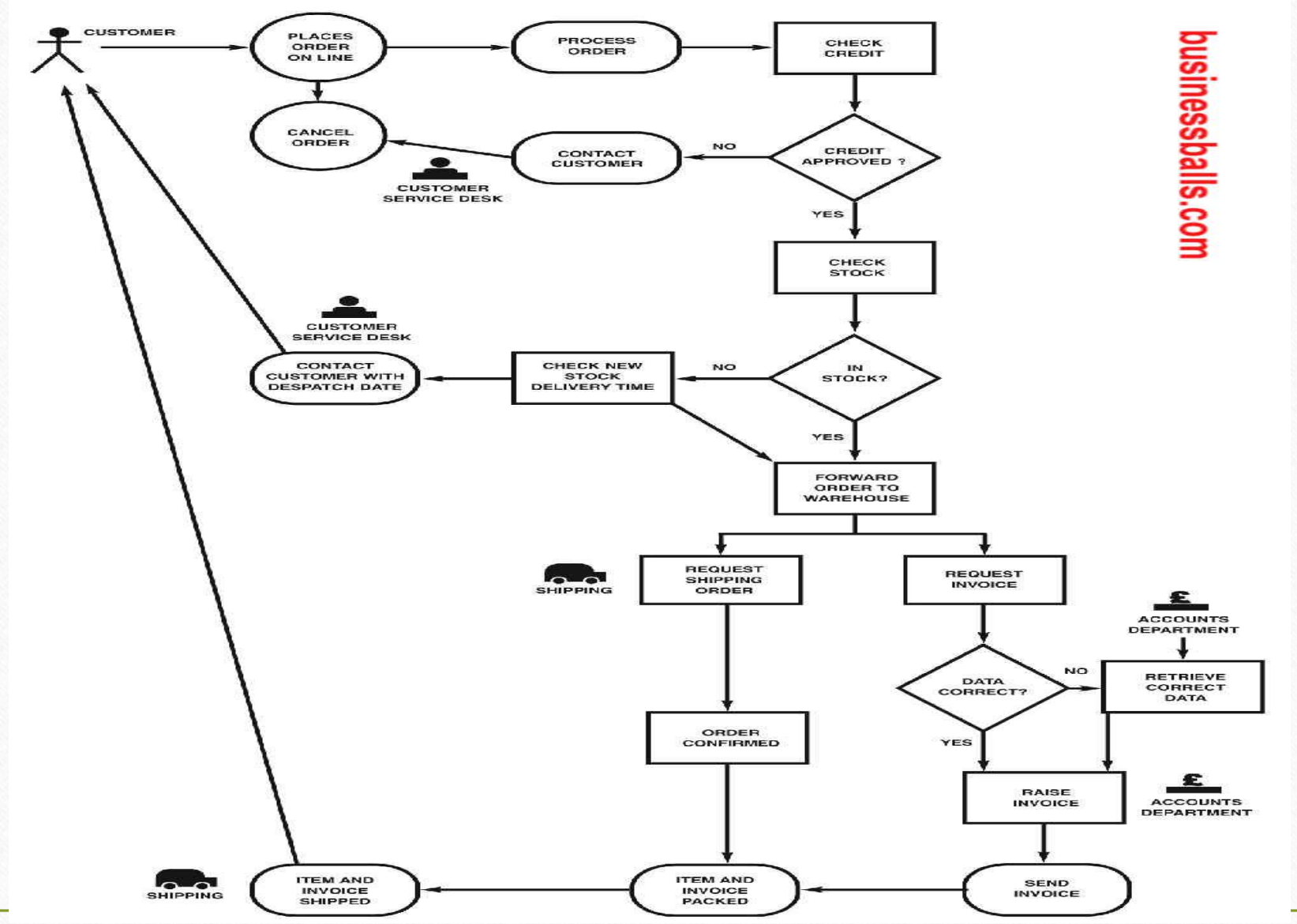
1. Level 1 Business Process
   - A high level aggregation of company functionality
2. Level 2 Major Processes
   - A bundle of processes that belong to the same area of responsibility dealing with similar tasks and activities for functional or other reasons
3. Level 3 Business Sub process
   - Fulfill the same business mission but in a different manner or with a different application
4. Level 4 Business Process Activities
   - Activities at the lowest level that needs to be fulfill at the end of the step.

Characteristic of Operations Processes

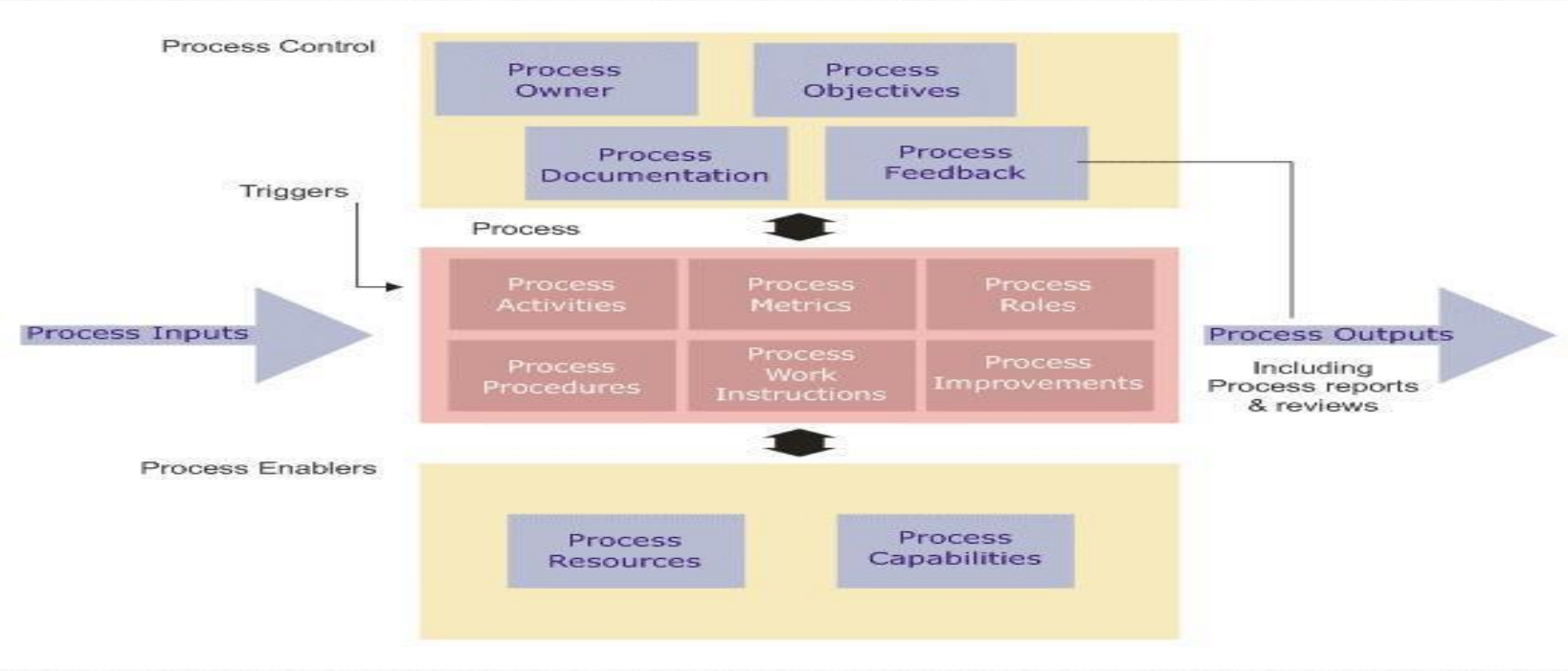
- **Volume**: Key to how business organized, for example McDonalds high volume low cost hamburger and fast food production.
- **Variety**: Flexibility in service, for example choice between taxi and a bus service
- **Variation**: Customized products, for example homes for sales with different number of rooms
- **Visibility**: Customers ability to see, track their experience or order through the operation process

Different Process Types

1. Manufacturing Process types:
   - Project, jobbing, batch, mass, continuous.
2. Service Process types:
   - Professional services, service shops, mass services
3. Basic types of layouts:
   - Process layout or functional layout, product layout, fixed-position layout, group or cell layout, hybrids and mixed layout.

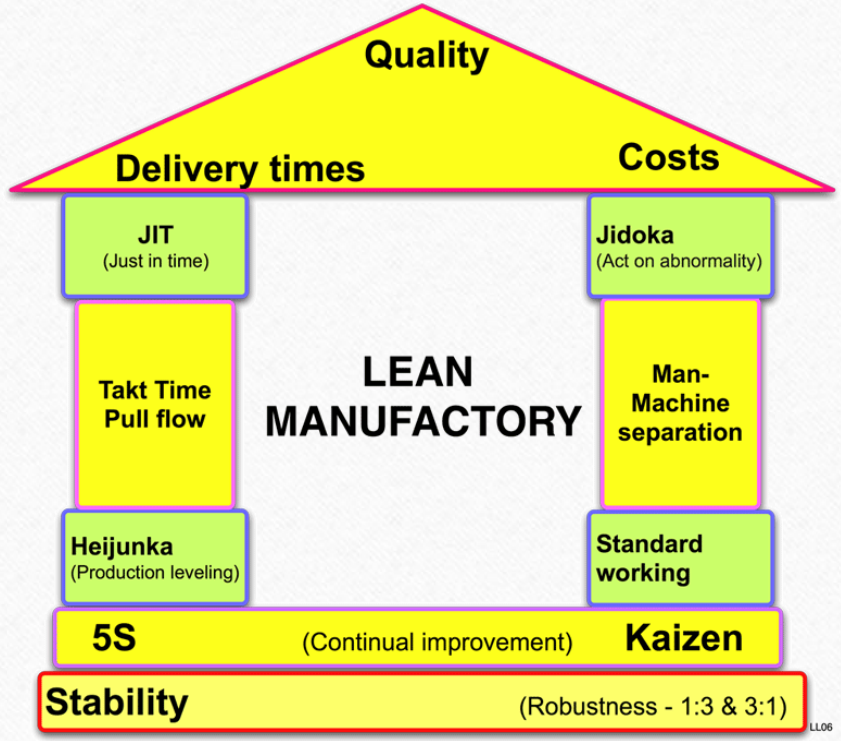

businessballs.com
CUSTOMER
PLACES ORDER ON LINE
PROCESS ORDER
CHECK CREDIT
CANCEL ORDER
CONTACT CUSTOMER
NO
CREDIT APPROVED ?
CUSTOMER SERVICE DESK
YES
CHECK STOCK
CUSTOMER SERVICE DESK
CONTACT CUSTOMER WITH DESPATCH DATE
CHECK NEW STOCK DELIVERY TIME
NO
IN STOCK?
YES
FORWARD ORDER TO WAREHOUSE
SHIPPING
REQUEST SHIPPING ORDER
REQUEST INVOICE
£
ACCOUNTS DEPARTMENT
DATA CORRECT?
NO
RETRIEVE CORRECT DATA
ORDER CONFIRMED
YES
RAISE INVOICE
£
ACCOUNTS DEPARTMENT
SHIPPING
ITEM AND INVOICE SHIPPED
ITEM AND INVOICE PACKED
SEND INVOICE

Process Control



Lean Manufacturing Technique

- **Lean manufacturing** or **lean production**, often simply "**lean**", is a systematic method for the elimination of waste ("Muda") within a manufacturing system. Lean also takes into account waste created through overburden ("Muri") and waste created through unevenness in work loads ("Mura"). Working from the perspective of the client who consumes a product or service, "value" is any action or process that a customer would be willing to pay for.



Integration of Supply Chain

- Waste elimination from the system is achieved with lean manufacturing technique and all tools.
  - Just in Time (JIT)
  - Total Quality Management (TQM)
  - Total Productive Maintenance (TPM)
  - Flow charts
  - Workplace Redesigning techniques are used

Further Reading

- https://www.visual-paradigm.com/features/business-process-modeling/
- http://www.businessballs.com/business-process-modelling.htm
- https://en.wikipedia.org/wiki/Lean_manufacturing

Review Questions

- Define the term process model
- Why are process models important?
- What are the elements of process models?
- Describe the input-transformation-output process
- Explain processes hierarchy
- Describe the 4 Vs of operations process
- What is lean management techniques

References

- Bennett, Claudette (2015) Operations Management Lecture Notes, Colbourne College
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- Open.edu (2016) Understanding Operations Management retrieved from http://www.open.edu/openlearn/money-management/management/leadership-and-management/understanding-operations-management/content-section-3.4
- https://en.wikipedia.org/wiki/Lean_manufacturing