

[31266]

Introduction to Information Systems Exam Notes 2016

Question 1a

Business Processes

- **Process:** *A collection of related structured activities.*
- **Business Processes:** *A business process is one of the six components that make up an information system. Each system must have at least one business process.*
 - Adoption of a new processes may be challenging, due to resistance to change, increased complexity and the threat of redundancy. To counter this, companies may provide training for staff.
 - Business processes help organisations...
 - Scale up
 - Increase efficiency (such as in resource allocation)
 - Increase control over business processes
 - New processes can drive change, increase profits and reduce operating costs.
 - Many companies do not adequately document their business practises because they lack a defined list of business processes, understanding of their business processes, funding, or do not consider documentation to be a priority.
 - Business Process Strength

Strong	Weak
<ul style="list-style-type: none">• Frequently Repeated• Structured Data• Well Documented	<ul style="list-style-type: none">• Infrequently Repeated• Unstructured Data• Low Predictability

- **BPM:** *Business Process Management is a systematic approach to making a workflow more effective, efficient and adaptable.*

- Management Types

- **Strategic:** *Concerned with the formulation and implementation of major goals of a firm, considering the allocation of resources and environmental constraints.*
- **Operational:** *Create workflows that formalise and automate business processes, including the implementation of information systems.*
- **Administrative:** *Responsible for developing the organisational information system structure to support business processes.*

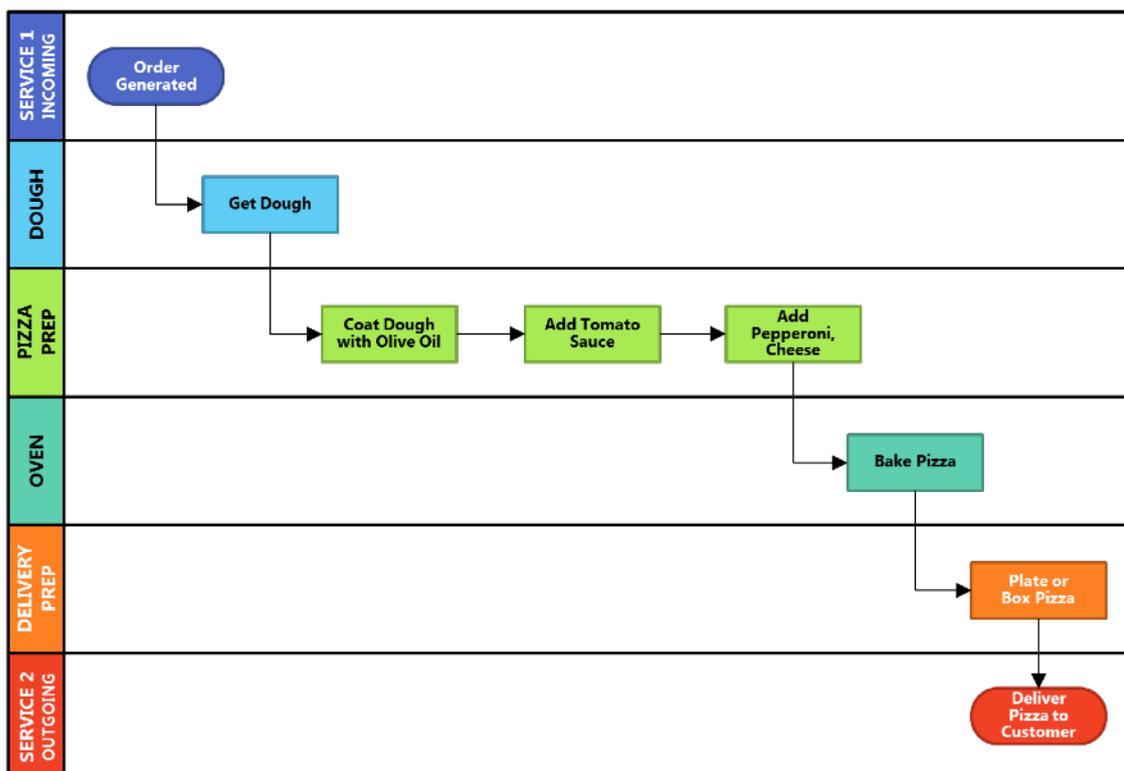
- **Swim-Lane Diagram:** *A process flowchart that provides richer information on who does what. It allows one to understand the responsibilities of different actors and allows for abstraction.*

- Steps in Creation of Swim-Lane

- *Determine Lanes*
- *Add processes (rectangles containing verbs)*
- *Add connections*

Future State: The Pizza Place

Source: North Carolina Center for Public Health Quality



Question 2a

Stakeholders

- **Stakeholder:** *Anybody who is affected by or can affect an organisation, strategy or project. They can be internal or external, junior or senior, and their role can have any amount of power.*
 - Stakeholders may have wildly differing perspectives in their hopes, fears and constraints for a project or organisation.
 - When individual fears, hopes and constraints clash, it can lead to Uncooperative Stakeholder Syndrome.
 - Businesses may decline due to lower sales, profit, service and/or stakeholders.
- Stakeholder Categories

Providers	Users/Beneficiaries	Governance	Influencers
<ul style="list-style-type: none"> • Suppliers • Partners 	<ul style="list-style-type: none"> • Customers • Staff 	<ul style="list-style-type: none"> • Auditors • Steering Groups • Regulatory Groups • Boards 	<ul style="list-style-type: none"> • Media • Trade Unions • Local Interest Groups

- **Stakeholder Theory:** *The purpose of a business is to be successful, sustainable, innovate so to keep stakeholder interests aligned, and to provide as much value for stakeholders as possible.*

- **SAM:** *The Stakeholder Analysis Matrix is a table that compares*
 - Is often a convenient way to form useful engagement plans for business.
 - Aims to provide a clear understanding of stakeholders and in doing so, provide insight into how to engage with them
 - (Influence : Impact) OR (Influence : Importance) OR (Power : Interests)

		Importance of Stakeholder			
		Unknown	Little / No importance	Some importance	Significant importance
Influence of Stakeholder	Significant influence				
	Somewhat influential		C		A
	Little / No influence				
	Unknown		D		B

- Principles
 - **Security Culture:** *Education training and awareness may help foster a culture of security.*
 - **Ethics & Ideals:** *Are formed by responsibility, integrity, ethicality and trust.*
 - **Formalisation & Norm:** *Establishing a boundary between these two is necessary to clarify ambiguity.*
 - **Contextualising Rules:** *Rules must be given meaning for them to be properly adhered to.*
 - **Understanding the Real:** *Focusing on formulating policy and grandiose strategies often fail to provide sufficient security.*
 - **Security Size:** *Bigger operations must abstract security to a number of divisions in order to maintain a secure system due to the benefits of micro-managing.*

- Security Types

Information	Networks
<ul style="list-style-type: none"> - Confidentiality - Integrity - Availability 	<ul style="list-style-type: none"> - Cryptography - Firewalls

- The International Organisation for Standardisation Security Protocols (ISO)

ISO 27001	ISO 27002	ISO 27003
Specs for IS security system to replace the old standard.	Update of ISO 17799	For information system management systems (ISMS)
ISO 27004	ISO 27005	ISO 27006
Measurements and metrics	Security risk management	Guidelines for organisation accreditation