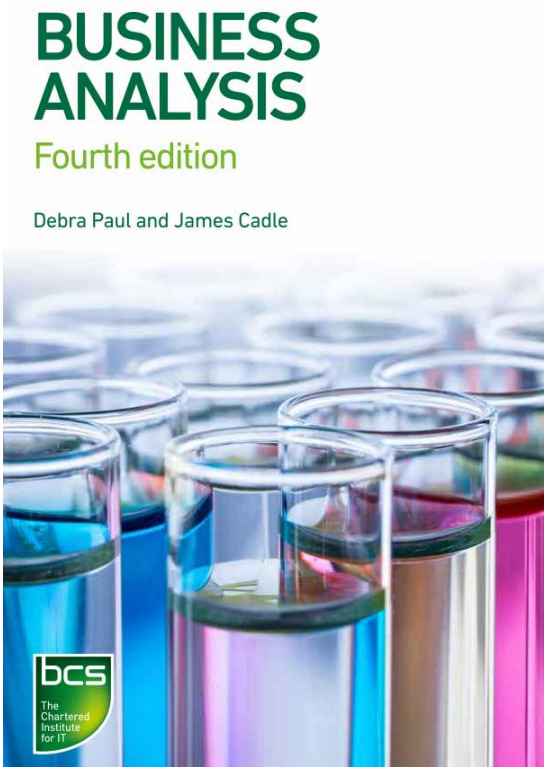
BCS Foundation Certificate in Business Analysis

Syllabus and cheatsheet / exam prep materials

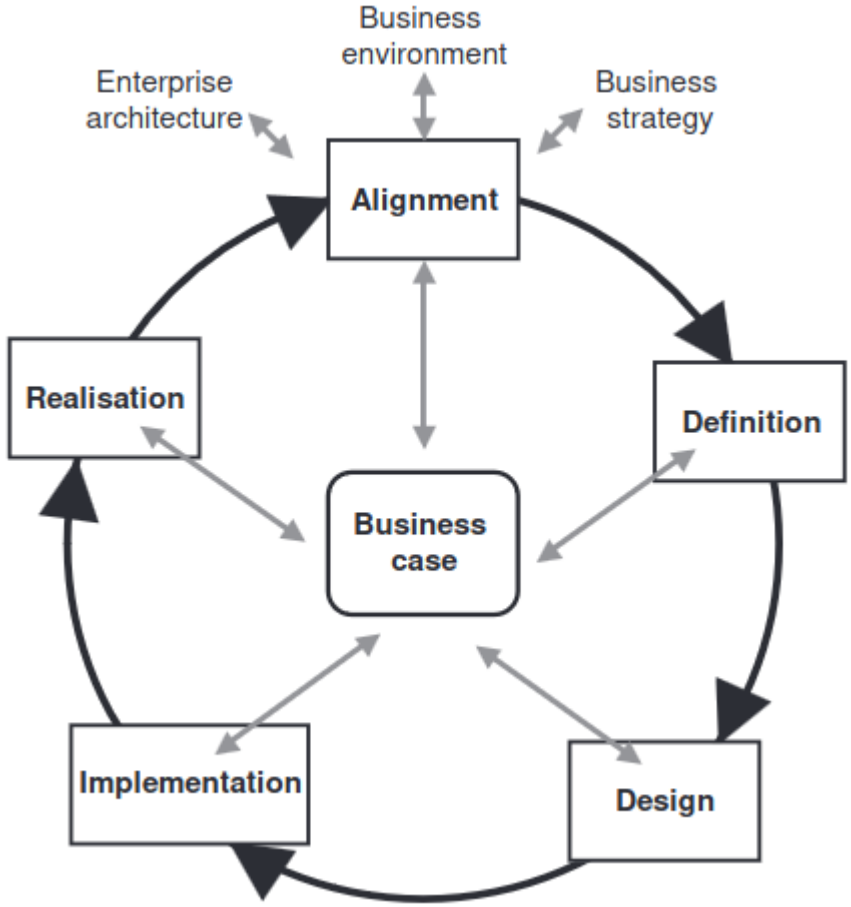
Based on the official BCS syllabus
Source: Debra Paul and James Cadle (2020). Business Analysis. Fourth edition.



Learning Objectives

1. What is Business Analysis (5%) Candidates will be able to:

1.1 Describe the business change lifecycle



1.2 List the *following principles of business analysis (**RIOFEN**)*

1.2.1 **R**oot causes not symptoms

- To distinguish between the symptoms of problems and the root causes
- To investigate and address the root causes of business problems
- To consider the holistic view

1.2.2 Business **I**mprovement not IT system change

- To recognise that IT systems should enable business opportunity or problem resolution
- To analyse opportunities for business improvement
- To enable business innovation and customer experience enhancement

1.2.3 **O**ptions not solutions

- To challenge pre-determined solutions
- To identify and evaluate options for meeting business needs

1.2.4 **F**easible, contributing requirements, not meeting all requests

- To be aware of financial and timescale constraints
- To identify requirements that are not feasible and do not contribute to business objectives
- To evaluate stated requirements against business needs and constraints

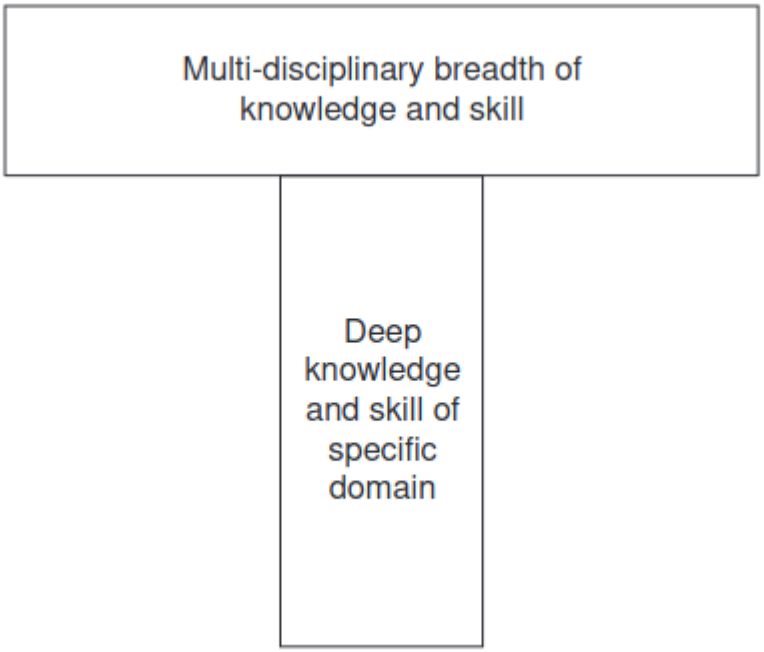
1.2.5 **E**ntire business change lifecycle, not just requirements definition
- To analyse business situations
- To support the effective development, testing, deployment and post-implementation review of solutions
- To support the management and realisation of business benefits

1.2.6 **N**egotiation not avoidance
- To recognise conflicting stakeholder views and requirements
- To negotiate conflicts between stakeholders

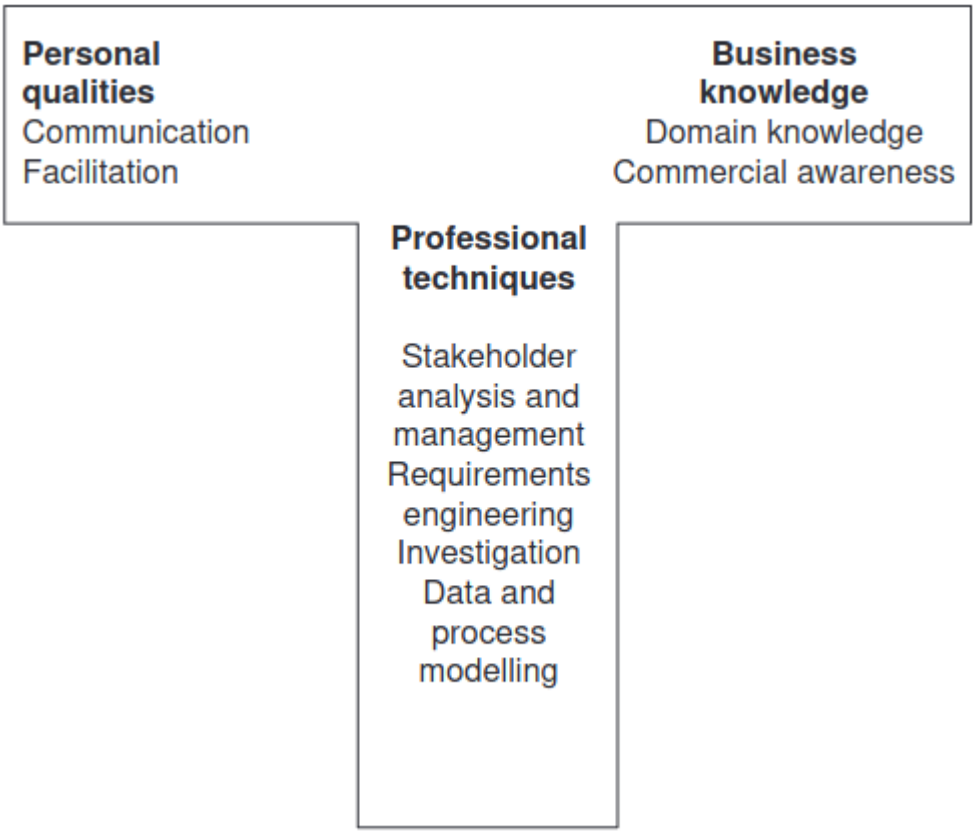
1.3 Describe the variants of the business analyst role
- **Business BA / Enterprise business analyst** - focus on the business situation, engagement with senior stakeholders, modelling using business use case diagrams
- **Technical business analyst / Business systems analyst** - focus on solution requirements and developing software, models/data/events
- **Digital business analyst** - using digital tech to improve organisations (operations and customers experience), use systems thinking + service thinking + design thinking
- **Project business analyst** - focus is on developing software product
- **Proxy product owner** - BA is responsible for managing the backlog of product requirements and features, established in Agile software development

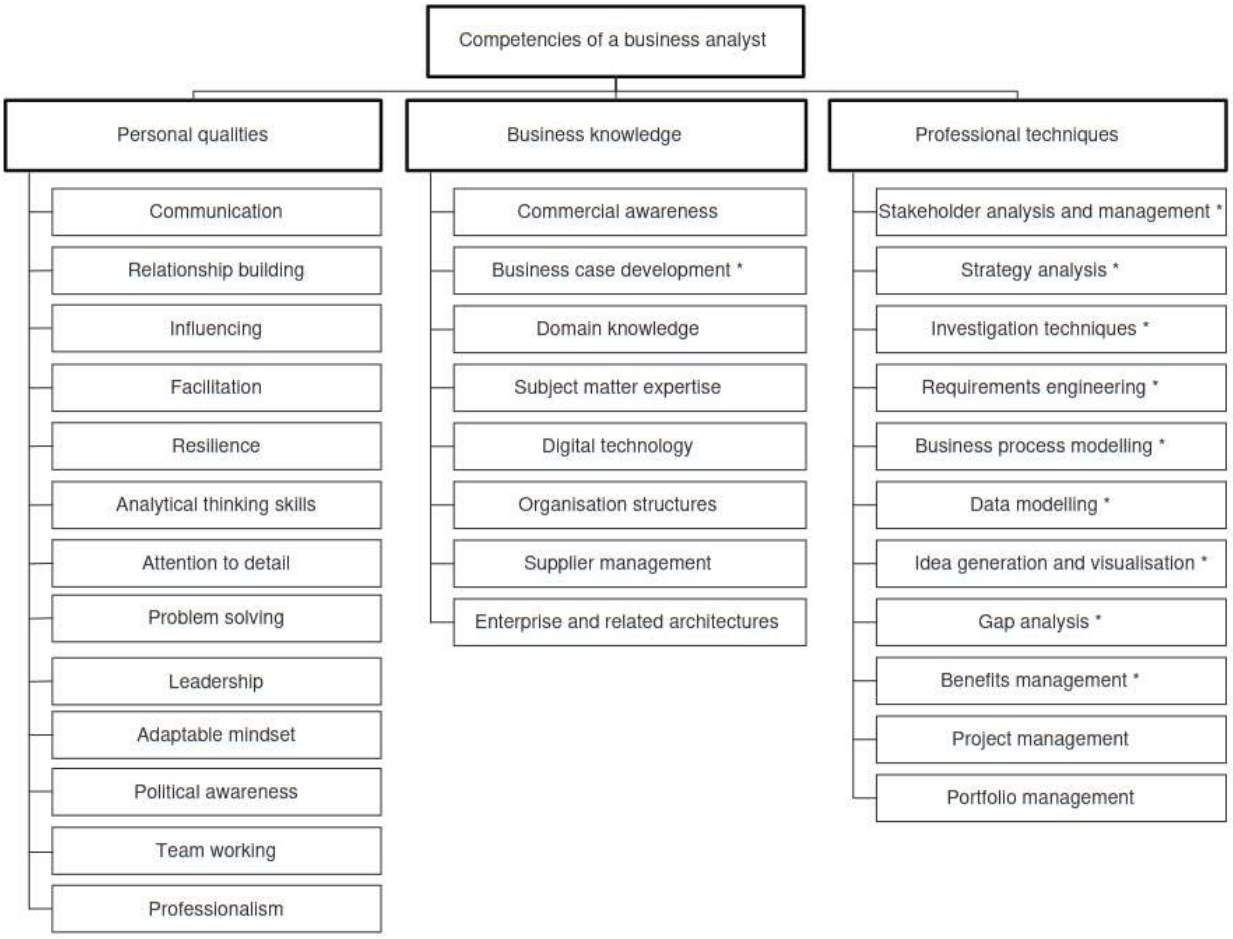
2. The Competencies of a Business Analyst (2.5%) Candidates will be able to:
2.1 Explain the concept of the T-shaped Professional

Highly skilled individuals who can adapt to different situations because of the range of skills they possess.



2.2 Identify the three areas of business analysis competency
Personal qualities, Business knowledge, Professional techniques


Personal qualities
Communication
Facilitation
Business knowledge
Domain knowledge
Commercial awareness
Professional techniques
Stakeholder analysis and management
Requirements engineering
Investigation
Data and process modelling


Competencies of a business analyst
Personal qualities
Communication
Relationship building
Influencing
Facilitation
Resilience
Analytical thinking skills
Attention to detail
Problem solving
Leadership
Adaptable mindset
Political awareness
Team working
Professionalism
Business knowledge
Commercial awareness
Business case development *
Domain knowledge
Subject matter expertise
Digital technology
Organisation structures
Supplier management
Enterprise and related architectures
Professional techniques
Stakeholder analysis and management *
Strategy analysis *
Investigation techniques *
Requirements engineering *
Business process modelling *
Data modelling *
Idea generation and visualisation *
Gap analysis *
Benefits management *
Project management
Portfolio management

3. The Strategic Context for Business Analysis (7.5%) Candidates will be able to:
3.1 Describe business analysis and the strategic context

Understanding the strategic context helps to clarify the environment in which the business analyst operates. This insight allows for the business analyst to contribute positively to the organisation's strategic journey through the delivery of business analysis services.

Benefits include the ability to:
- analyse and discuss strategic approaches and priorities;
- build credibility when discussing the organisation with stakeholders;
- question the appropriateness and alignment of decisions taken prior to and during the execution of change;
- analyse the effectiveness of the approach, outputs and benefits expected from a change initiative;
- provide leadership and influence for the delivery of strategically aligned change.

3.2 Define the factors assessed using PESTLE to analyse an external environment

Political, Economic, Socio-Cultural, Technological, Legal, Environmental (+ Ethical)

Political	Forces within the international, national and local political environments. Examples include: • Policies and decisions made by national and local governments • Policies and decisions made by transnational political organisations such as the African Union, Arab League, European Union, United Nations, North Atlantic Treaty Organization (NATO) • Trends and policies advocated by associations looking to further their political cause such as Amnesty International, Greenpeace, WWF
Economic	Forces within the international, national and local economic environment. Examples include: • Interest rates. This impacts the cost of borrowing • Inflation. This indicates the rate at which prices are stable or increasing within the economy • Levels of employment. This impacts the availability of labour for an organisation • Levels of disposable income. This impacts consumer spending power and can negatively or positively impact spending levels within the economy • Availability and cost of resources. For example, an increase in the price of energy can impact costs throughout the economy • Growth trends in national and international economies (high economic growth, stagnant growth and recessions). This impacts investment and consumer confidence as well as other economic considerations • Fluctuations in currency exchange rates. This impacts the cost of imports and the prices of exported goods and services
Socio-cultural	Trends within society and culture. Examples include: • Changes to demographics. This includes changes to characteristics of the population such as ethnicity, gender, age, education levels, occupation, religion, marriage and birth/death rates • Changes in preferences and habits. For example, the trend towards using smart devices (such as voice-enabled devices, smart watches, smart home devices)

	• Changes within popularly held viewpoints and opinions. For example, the increased prominence of speaking about mental health issues by celebrities or the increased discussion and focus on environmental concerns
Technological	Trends within technology. Examples include: • The availability of new technologies such as AI, self-driving vehicles, smart devices, voice-enabled devices • The increased connectedness of technologies (for example, the increased prominence of intra-technology communication standards) • The increased use of RPA • Availability of skills to build and maintain technology platforms • The movement towards digital products and services
Legal	Trends and expectations that have legal or regulatory impact. Examples include: • Employment law • Data protection law • Competition law • Health and safety law • Taxation rules and regulations • Disability discrimination and or equality law • Intellectual property law • Market specific legislation and regulation (for example, legislation that targets a specific sector such as finance or health)
Environmental	Trends and influences that are concerned with the natural environment. Examples include: • Carbon emissions and climate change • Changes to natural habitats (e.g. deforestation, shrinking of polar ice caps) • Animal welfare • Waste disposal and recycling

3.3 Identify the elements of the VMOST technique used to analyse an internal environment

Internal environment techniques: VMOST analysis, resource audit, balance scorecard (BSC), performance measurement, growth share matrix (BCG matrix).

VMOST: Vision, Mission, Objectives, Strategy, Tactics.

3.4 Describe the following elements of performance measurement
3.4.1 Critical success factors (**CSF**)

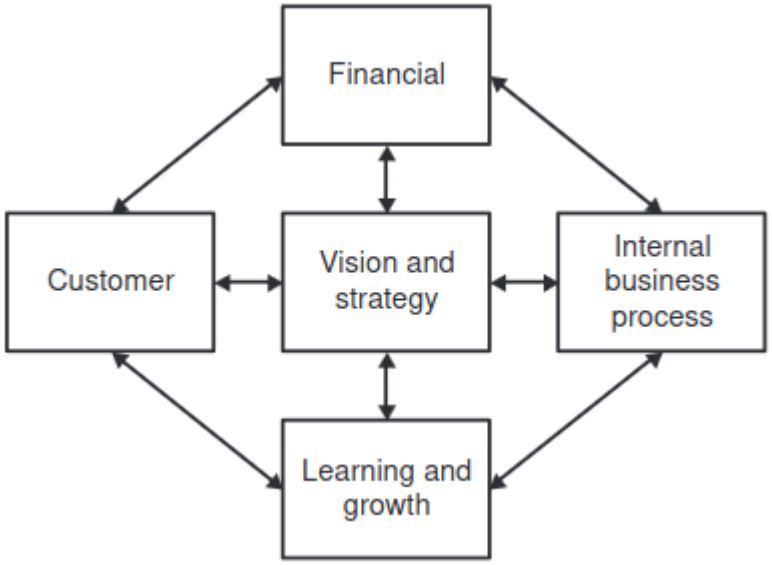
CSFs are defined to help to monitor progress towards achieving an objective.

- Qualitative descriptions of the critical factors that must be in place for the organisation to achieve defined objectives
- CSFs are ideally balanced (see BSC) and should align to the 'Vision' and 'Mission' of the organisation
- Multiple CSFs can be relevant to any individual objective

3.4.2 Key Performance Indicators (**KPIs**)

- Quantitative (**SMART**) measurements of performance that track the achievement of CSFs.
- Multiple KPIs can be used to measure a single CSF
- KPIs can be used to measure multiple different CSFs

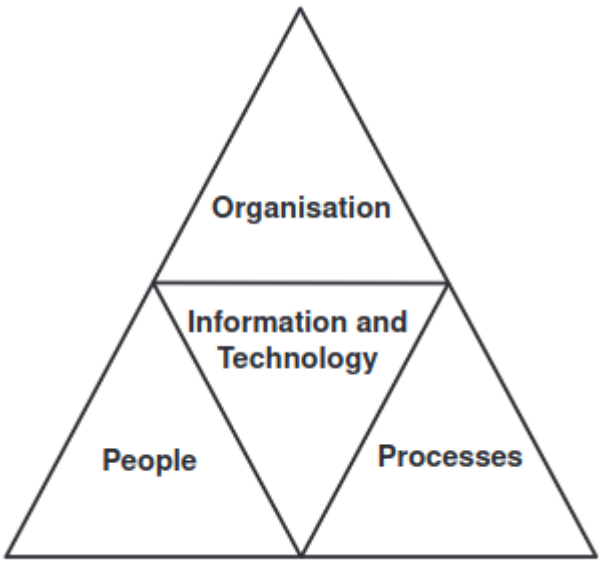
3.4.3 Balanced scorecard (BSC) - EW's addition



3.5 Describe the structure of a SWOT analysis

SWOT analysis summarises the results of the internal and external environment analysis and highlights the key factors identified

3.6 Describe the following techniques used in strategy execution
3.6.1 The POPIT model

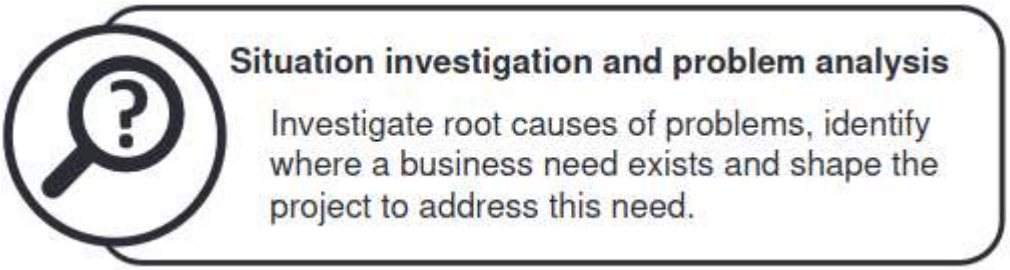


3.6.2 The purpose of the business model

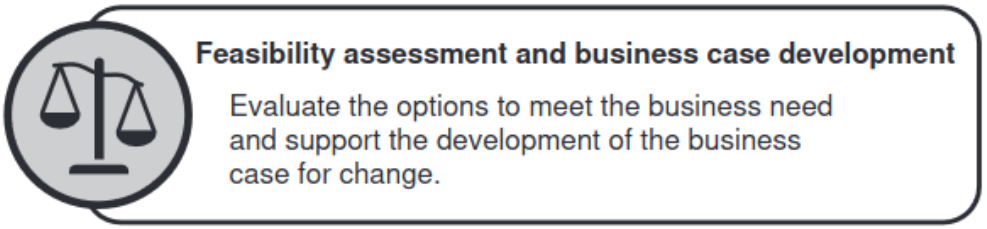
Business model - the way an organisation is designed to deliver products and services to customers. This provides a means through which to develop and execute strategy. Business models help to align the work of the organisation with desired outcomes. They can be used to assess the current and target state and to identify and plan changes.

4. **BASF** The Business Analysis Service Framework (2.5%) Candidates will be able to:
4.1 Identify the following services in the Business Analysis Service Framework (**BASF**)

4.1.1 Situation investigation and problem analysis

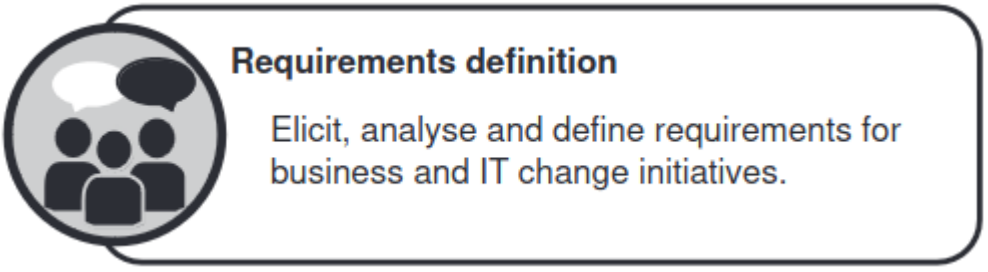


4.1.2 Feasibility assessment and business case development

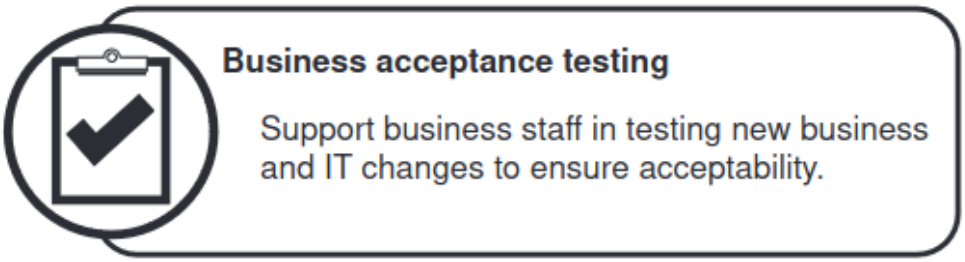


4.1.3 Business process improvement

4.1.4 Requirements definition



4.1.5 Business acceptance testing



4.1.6 Business change deployment

4.1.7 Stakeholder engagement

Not included in the BASF because it is an auxiliary service.
Key stakeholder management techniques include: Customer, Actor, Transformation, World View, Owner, Environment (**CATWOE**)

5. Investigating the Business Situation (12.5%) Candidates will be able to:
5.1 Define workshops

Workshops provide an excellent collaborative forum in which issues can be discussed, conflicts resolved and requirements elicited. They are also a useful environment for carrying out other activities, such as compiling process models, understanding data requirements, eliciting CSFs and KPIs or analysing the quality of a requirements set before they are formally documented

5.1.1 Advantages and disadvantages of workshops

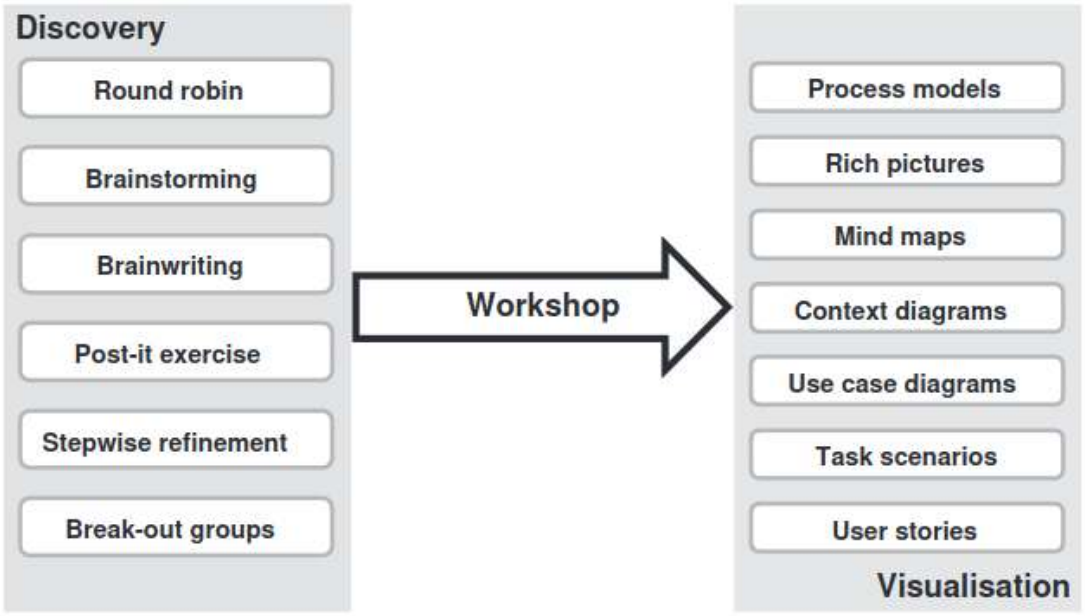
Pros:

- Gain a broad view of the area under investigation
- Increase speed and productivity
- Obtain buy-in and acceptance for the project
- Gain a consensus view or group agreement

Cons:

- Extensive preparation time
- Undue influence of dominant personalities
- Authority limitations

5.1.2 List techniques used for **discovery** workshops



5.1.3 List techniques used for **visualisation** workshops
PRUMCUT

5.2 Define **observation**

Observing the workplace and the staff carrying out their work, particularly when done early in an investigation, is very useful to obtain information about the business environment and work practices.

5.2.1 Advantages and disadvantages of observation

Pros:

- A much better **understanding** of the problems and difficulties faced by the business users is obtained.
- Seeing a task performed helps to **identify** relevant questions for a follow-up interview with the person responsible for that task.
- The **depth** of understanding gained from observation helps in identifying workable solutions that are more likely to be acceptable to the business.

Cons:

- Being observed can be rather **unnerving** so people tend to behave as they feel is expected rather than how they would under normal work conditions. The saying 'you change what you observe' needs to be factored into the approach taken and the findings obtained.
- When observing a task being performed, the analyst just sees what happens on that **particular occasion**. The routine activities are likely to be performed but there may be other aspects of the process that are carried out infrequently and, if they are not needed during the observation session, the analyst may be unaware of them

5.2.2 Formal observation
Formal observation involves watching a specific task being performed. While this form of observation runs the risk of staff following standard practices without demonstrating

any of the everyday variances, this is still a useful technique to increase understanding.

5.2.3 Shadowing
Shadowing involves following a member of staff for a period, such as one or two days, to find out what a particular job entails.

5.3 Define **interviews**
Key tool in the business analyst's toolkit. The term 'interview' can imply a formal one-to-one meeting but in practice is a meeting with any number of stakeholders.

5.3.1 Advantages and disadvantages of interviewing
Pros:

- Opportunity to build a **relationship** with the individual stakeholders
- Opportunity to **understand** the business context and concerns of the staff
- Can yield important **information**
- They help the analyst to **understand different viewpoints** and attitudes across the user group.
- They provide an opportunity to **investigate new areas** that were not previously mentioned.
- They enable the analyst to **identify and collect examples of documents**, forms and reports used by the clients.
- They allow an **appreciation of political factors** that may affect how the business performs its work.
- They provide an **opportunity to study the environment** in which the business staff carry out their work.

Cons:

- Require time and budget
- Information obtained might be subjective
- Different interviewees often hold different views

5.4 Define **scenarios**
Scenario analysis involves telling the story of a task or transaction. Scenarios are useful when analysing or redesigning business processes as they help both the staff member and the analyst to think through the steps followed to carry out a piece of work.

5.4.1 Advantages and disadvantages of scenarios
Pros:

- Require the member of staff to **identify each step** required to carry out a transaction, and the transitions between the steps; this reduces, or even removes, the opportunity for omissions.
- **Step-by-step development** approach helps to ensure that there are no taken-for-granted elements and the problem of tacit knowledge is addressed
- Developed using a '**top-down**' approach, starting with an overview scenario and then refining this with further detail
- A workshop group with responsibility for refining a scenario should **identify** those **paths that do not suit the corporate culture** or are not congruent with any community of practice involved.

- Provide a **basis for developing prototypes**.
- Provide a painstaking **basis** for **preparing test scripts.**

Cons:
- Time consuming
- Can be complex

5.5 Define **prototyping**
Prototyping is helpful when eliciting, analysing, demonstrating and validating requirements. It involves building simulations of a process or system in order to review them with the business representatives and thereby increase understanding about the requirements.

5.5.1 Advantages and disadvantages of prototyping
Pros:
- **Clarify** any uncertainty on the part of the analysts and confirm to business staff that their requirements have been understood.
- Help the business staff to **identify new requirements** as they gain an understanding of how the system will operate and what the system will do to support their work.
- **Demonstrate the look and feel** of the proposed system and elicit usability and accessibility requirements.
- Enable business staff to **validate the requirements** and identify any errors.
- Provide a **means of assessing the navigation paths** and system performance.
- Prototyping also has a number of hazards, most of which can be avoided by setting clear objectives for the prototyping exercise and managing the stakeholders' expectations.

Cons:
- The prototyping cycle c**an spin out of control** with endless iterations taking place.
- If the purpose of the exercise has not been explained clearly, business staff may **make false assumptions about the progress** of the work and believe that the solution is almost ready for delivery on the basis of an agreed prototype.
- **Expectations can be raised** unnecessarily by failing to match the final appearance of the system, or its performance.

5.6 Define **user role analysis**
User role analysis is concerned with identifying specific groups of individuals where all of the members of a group need to access a particular set of services from a business system.

5.6.1 Advantages and disadvantages of user role analysis
Pros:
- means of **identifying where stakeholders have common interests** or requirements;
- more efficient approach to **eliciting and analysing requirements**;
- strong **basis for analysing scenarios**, stakeholder perspectives, use cases and user stories

Cons:

- Generic user role names can cover wide stakeholder groups (e.g different types of clients all grouped as generic ‘client’)

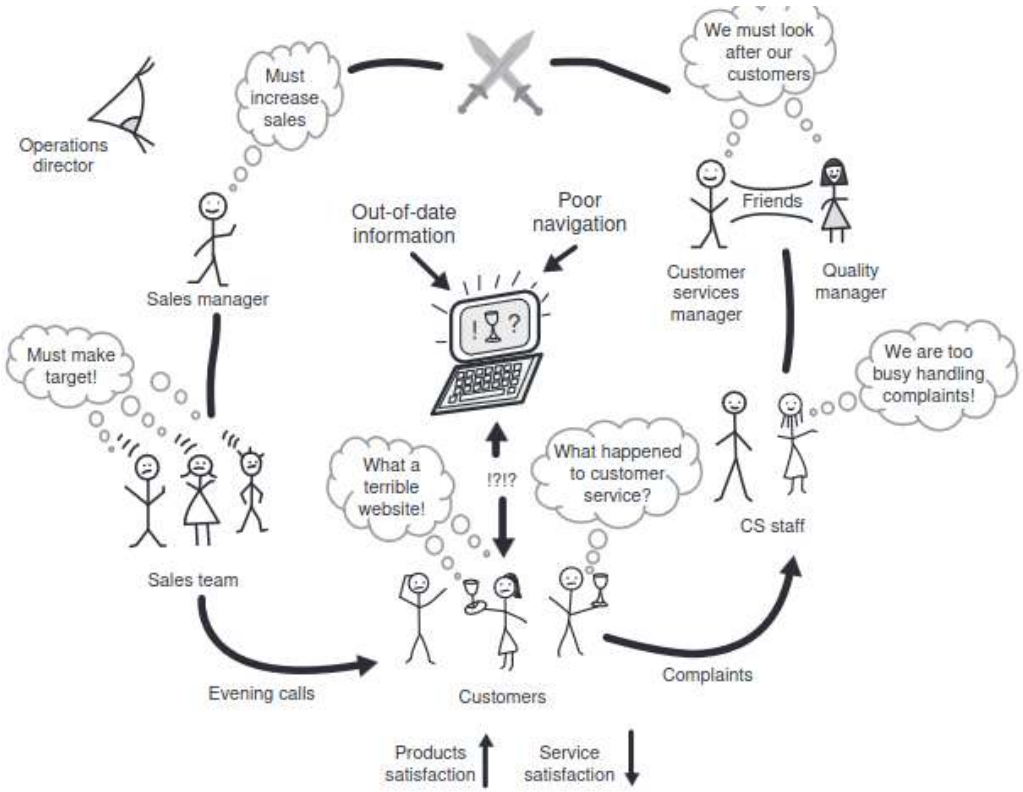
5.6.2 **Personas**
Archetypes, they nevertheless help to envisage why and how these different customers might want to access services. This information helps when designing processes and services to ensure that they meet the needs of the personas who wish to access them.

5.7 Define **quantitative** approaches
5.7.1 Surveys or questionnaires
Surveys can be useful to get a limited amount of information from a lot of people as interviewing them individually or running a series of workshops is not practical.
Areas to consider: heading, classification, and data sections.

5.7.2 Activity sampling
Activity sampling is also a quantitative form of observation and is used when it is necessary to know how people divide their work time among a range of activities.
Identify > assign frequency > visit/collect data > record the results > analyse

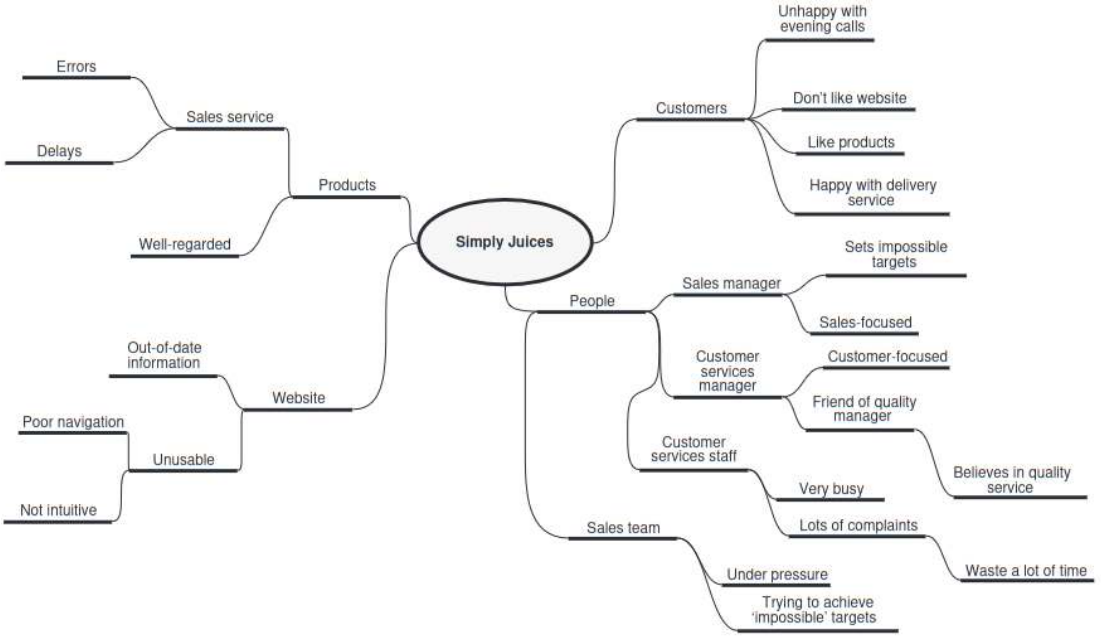
5.7.3 Document analysis
Involves reviewing samples of source documents or reports to uncover information about an organisation, process or system.

5.8 Describe the following two **diagrammatic techniques** used to record a business situation
5.8.1 Rich pictures
Provides an overview of an entire business situation. Allows the analyst to document all of the organisational, human and cultural aspects as well as process and information flows of a business system.



5.8.2 Mind maps

Useful tool for summarising a lot of information in a visual form. The information is structured to highlight connections between ideas and topics.



Other tools:

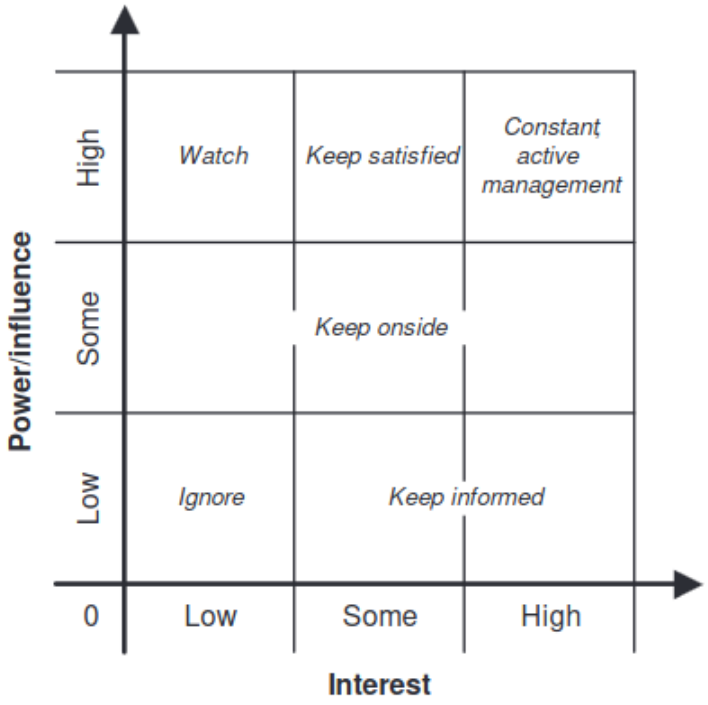
- Fishbone diagram (labelling 4Ms: manpower, machines, measures and methods; or 4Ms, 6Ps, 4Ss)
- Business process model (flowchart)

6. **Analysing and Managing Stakeholders** (10%) Candidates will be able to:

6.1 Identify stakeholder categories using the **stakeholder wheel**

MERSPOCC

6.2 Describe the Power/Interest grid technique to analyse stakeholders



6.2.1 Resulting stakeholder management strategies
Constantly evaluate stakeholder position. Draw a plan how to engage, e.g. spreadsheet with Name, Power/Influence, Issues/Interests, Current Attitude (Champion, Supporter, Neutral, Critic, Opponent, Blocker), Desired Support, Desired Role, Desired Actions, Message to Convey, Actions and Communications.

6.3 Describe stakeholder responsibilities using RACI
RACI Responsible, Accountable, Consulted, Informed - linear responsibility matrix

R = Responsible A = Accountable C = Consulted I = Informed	Project sponsor	Senior user	Business actor (user)	Domain expert	Project manager	Business analyst
Business case	A	C	I	C	R	C

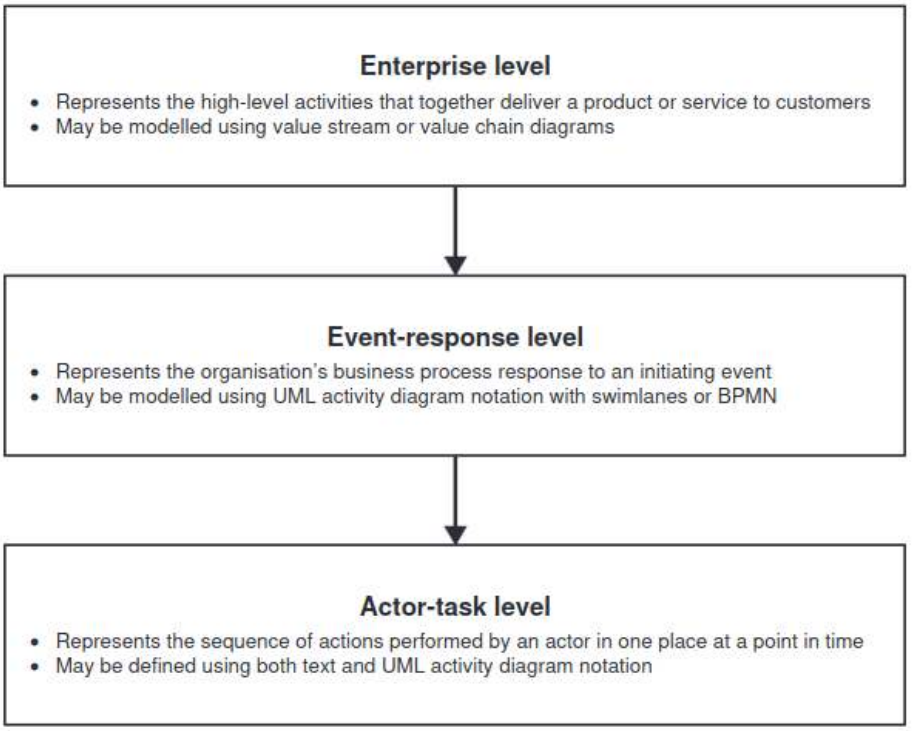
RASCI - **Supportive** added

Systems analysis / Soft systems methodology (**SSM** - **CATWOE**)
Customer, Actor, Transformation, World view, Owner, Environment

BAM - Business activity model

7. Improving Business Services and Processes (12.5%) Candidates will be able to:
7.1 Explain the business process hierarchy

- Enterprise-level - the value stream
- Event-response level - the business process
- Actor-task level: the task



7.2 List the following techniques used to model the enterprise level processes
7.2.1 SIPOC - supplier, input, process, output, customer

Supplier	Inputs	Process	Outputs	Customer
Consumers	Orders for products	Record order and take payment ↓		
Product suppliers	Products to be sold	Collate, package and deliver products	Delivered products	Consumers in receipt of products

7.2.2 Value chain analysis
Two areas - Primary and support areas

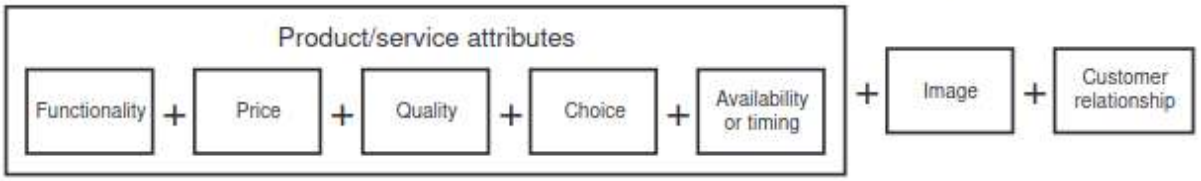
Table 7.1 Areas of activity within Porter's value chain

Value chain area	Activity	Description
Primary activities: Activities handling business processes and tasks that together deliver the value proposition	Inbound logistics	Activities that enable the performance of the operations. For example, procuring resources or registering customers.
	Operations	Activities that conduct the core work of the value chain. For example, manufacturing goods or creating services.
	Outbound logistics	Activities that deliver the products or services to the customers. For example, distributing goods or providing services.
	Marketing and sales	Activities concerned with researching and informing the potential customers, and selling the enterprise's products and services. For example, conducting market research or promoting products.
	Service	Activities concerned with supporting customers, both before and after product or service purchases have been made. For example, responding to customer queries or complaints.
Support activities: Activities handling business processes and tasks that support the primary tasks	Firm infrastructure	Activities concerned with the establishment and maintenance of the physical infrastructure that enables the enterprise's work. For example, managing building facilities or equipment features.
	HR management	Activities concerned with recruitment and management of the enterprise's employees. For example, recruiting new staff or managing the performance of existing staff.
	Technology development	Activities concerned with the provision of technological services to the enterprise. For example, setting up the technical and applications architectures.
	Procurement	Activities concerned with managing suppliers of resources and services to the enterprise. For example, selecting preferred suppliers or managing supplier performance.

7.2.3 Value propositions

- Clarifying the **outcomes** offered by an organisation from the delivery of its products or services
- Demonstrating to customers that what is **delivered** will achieve what they desire or need.
- **Differentiating** organisations from their competitors. A value proposition can be a powerful mechanism where an organisation understands what customers require and value, and aligns this understanding with their values.

Figure 7.7 Elements of a value proposition (© Assist Knowledge Development Ltd.)



Alternative value proposition (Osterwalder and Pigneur): **Pain relievers** and **Gain creators**

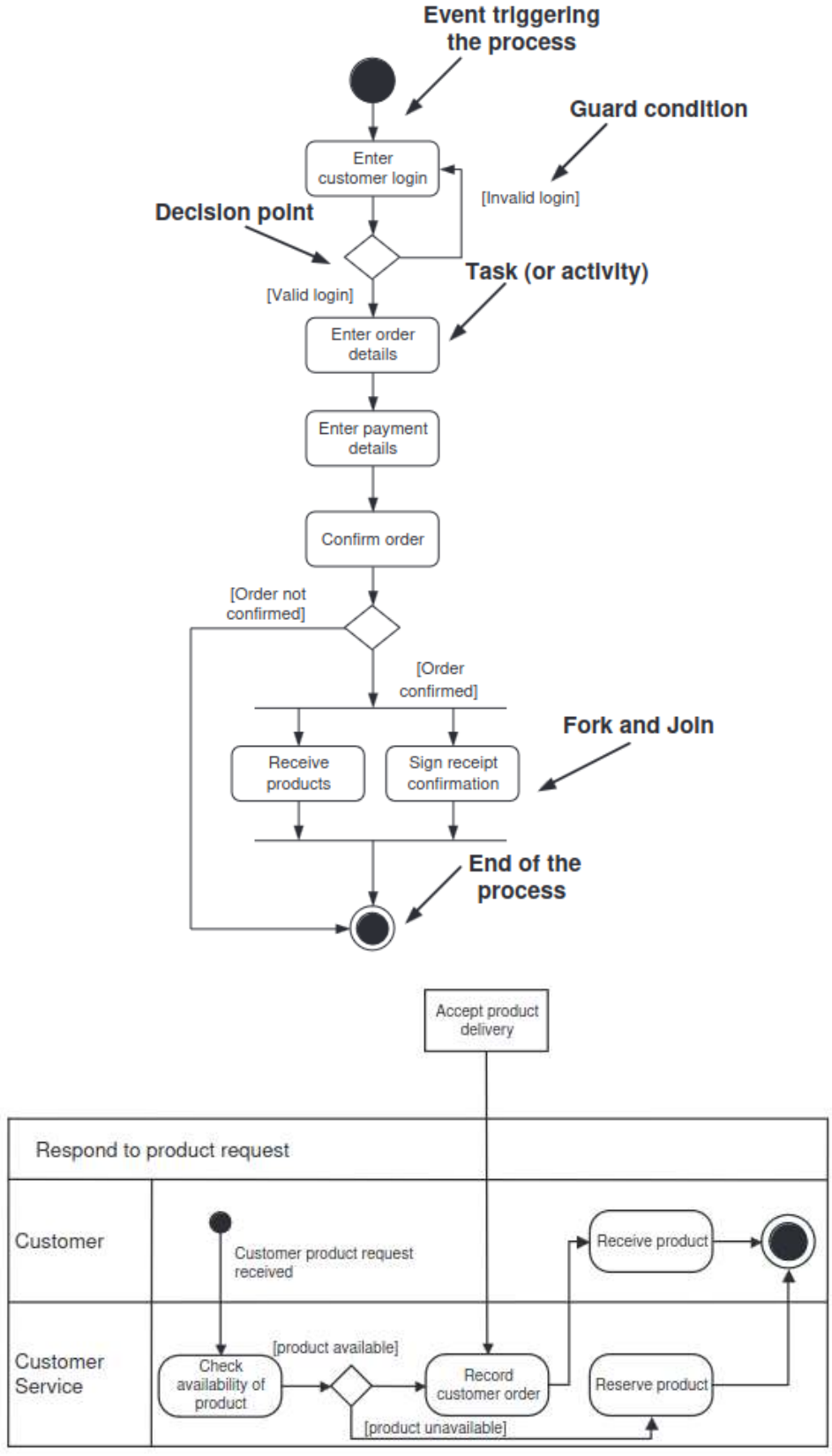
7.3 Describe the following aspects of the event response level

7.3.1 **Business events**
Business events take place outside the business process under consideration and trigger the process to begin. The events may occur outside the organisation or may be internal.
External, Internal, Time-based

7.3.2 Creating business process models
Process refers to a set of tasks, each of which may be conducted by a different actor. The process starts with a triggering event and ends with the delivery or achievement of an outcome related to that event.

7.3.3 UML activity models
Unified **M**odeling **L**anguage

Figure 7.11 Diagram showing elements of a UML activity diagram



7.4 Describe the following aspect of the actor-task level

7.4.1 Analysis considerations at actor-task level

Area for analysis	Description
Actor	The role, the group or the system with responsibility for performing the task.
Event	The event that triggers the task; other than the initial task in the business process, each task is initiated by a sub-event.
Input	The information required to conduct the task. This may be the same as the event but, in most situations, the input is the information used rather than the trigger to start work.
Output(s)	The deliverable(s) produced from conducting the task. This may be a tangible deliverable, such as a product, or may be less tangible, such as information.
Costs	The costs associated with the performance of the task.
Performance measures	The measures used to evaluate the performance of the task. These are concerned with two areas: 1. Accuracy: what are the areas where accuracy is to be assessed and what is the required level of accuracy? 2. Timeliness: was the task performed within the required timescale?
Steps	The individual actions taken when conducting the task. The actor may be required to apply business rules when performing a step. The business rules determine how the task, or possibly the business process, is to be carried out following the completion of the step. For example, a business rule may determine the nature of the output from a task or may determine that a different task should begin. Some steps may apply business rules that could result in the termination of the entire process.

7.5 Describe analysis of the following aspects of the as-is process model
7.5.1 Identifying problems
Lack of customer focus / Lack of organisation focus

7.5.2 Analysing the handoffs
When one actor passes control of the process to another actor. Often a cause of business problems.

7.5.3 Analysing the tasks and procedures
Duplication / Redundancy / Lack of Standardisation / Inefficient work practices / Inappropriate measures

7.6 Identify generic approaches to improving business processes
Simplification / Redesign / Bottleneck removal / Change task sequence / Redefine boundary / Automate processing

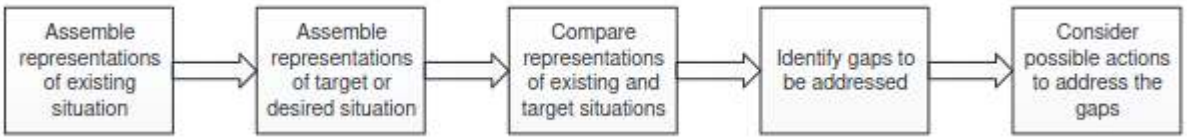
Six Sigma: DMAIC - Define problem, Measure the data, Analyse the problem, Improve the process by addressing the root cause of the problems, Control the effectiveness of solution

7.7 Define the purpose of customer journey maps
Customer journey maps examine processes from the customer's perspective.
Elements considered: Role, Persona, Persona goal, Stages of customer journey, Touchpoints, RAG assessment of touchpoints, Emotional responses of persona, Potential opportunities for improvement.

Key aspects: PoV, Structure, Scope, Focus, Use.

Wastes of Lean: TIMWOODS: Transport, Inventory, Motion, Waiting, Overproduction, Overprocessing, Defects, Skills.

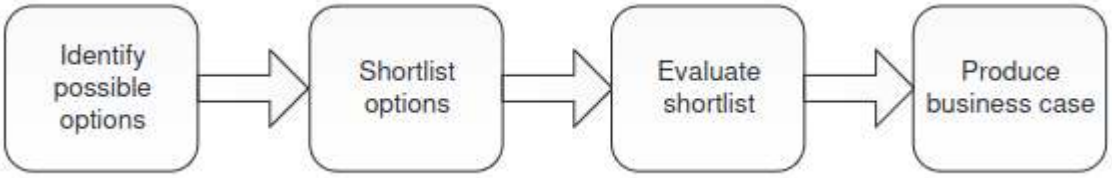
8. Defining the solution (7.5%) Candidates will be able to:
8.1 Describe the gap analysis process



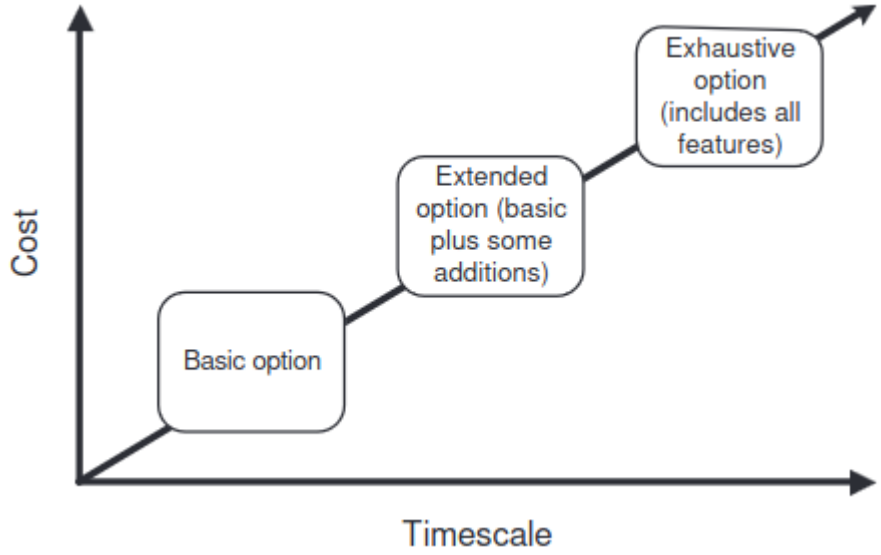
8.2 Explain the use of POPIT in gap analysis

POPIT dimension	Aspects for consideration
People	Skills, motivation, performance objectives, recruitment approach and criteria, appraisal and development approach, salaries and benefits
Organisation	Job roles, management structures, culture, values, standards, policies
Processes	Process and task definitions, business events, business rules
Information	Capture, recording, reporting and distribution of data and information
Technology	Software products, hardware, infrastructure, networking, communication, digital and other forms of technology

8.3 Describe the process for developing options



8.3.1 Types of options



8.4 Describe the purpose of design thinking

Design thinking encourages the use of product design concepts and techniques such as prototyping, learning from trying out ideas, divergent and convergent thinking and, most importantly, keeping a customer focus in mind. The application of a design thinking approach helps to uncover innovative options that may not have been identified when using more traditional approaches.

Stage	Techniques
Empathise	Investigation techniques, personas, empathy mapping and customer journey mapping.
Define	Storytelling and problem framing; perspective analysis.
Ideate	Brainstorming and brainwriting; divergent and convergent thinking; mind mapping.
Prototype	Prototyping and scenario analysis.
Evaluate	Scenario and event analysis; reflective learning.
Create	Experimentation, feedback and review.

8.4.1 Divergent and convergent thinking

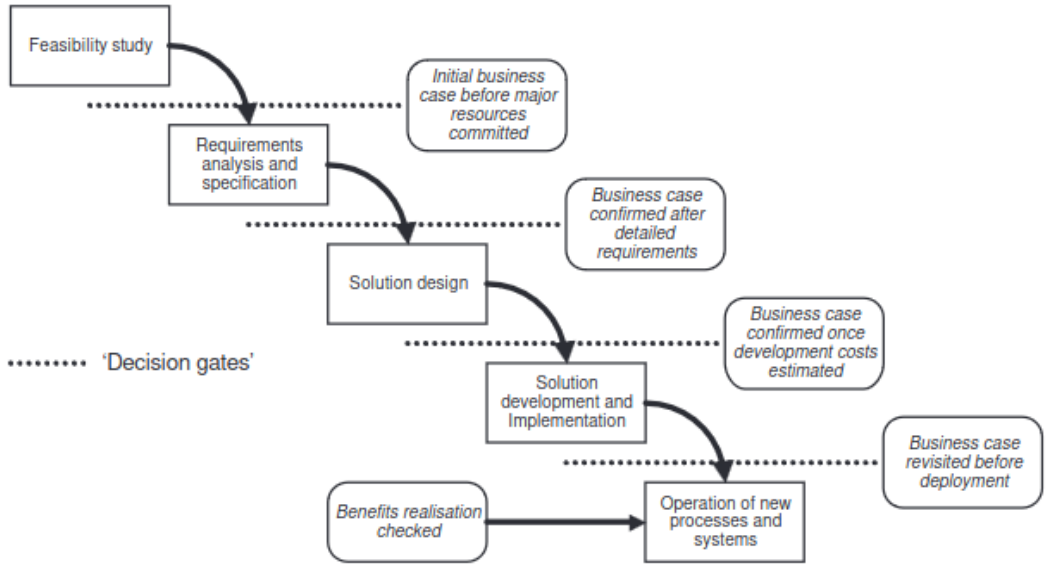
Convergent thinking focuses on finding one well-defined solution to a problem. Divergent thinking is the opposite of convergent thinking and involves more creativity.

9. Making the **Business Case** (5%) Candidates will be able to:

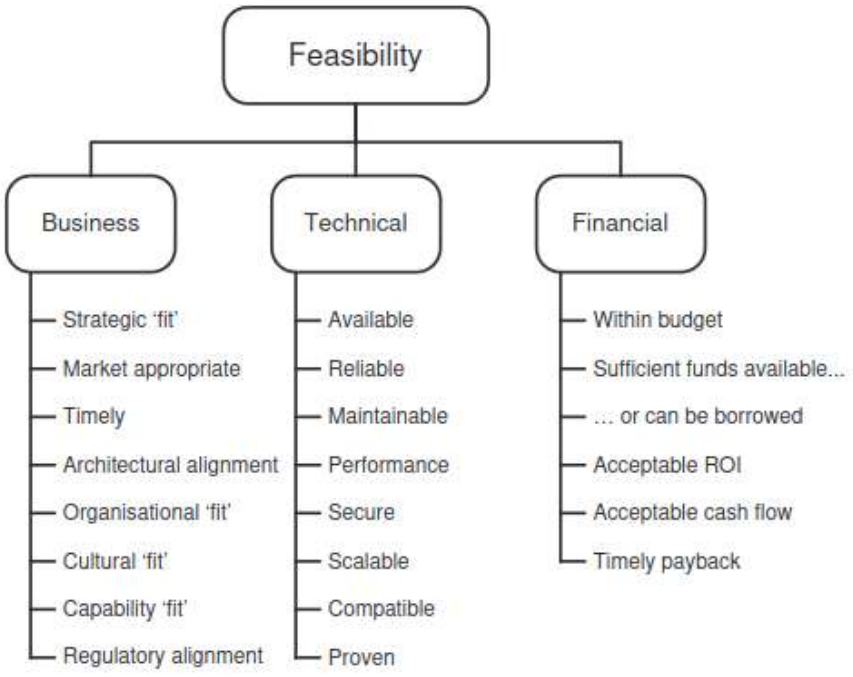
A business case is a key document in a business change project. It is where the analysts or consultants present their findings and propose actions for senior management to consider.

9.1 Describe the lifecycle for a business case in business case development

Figure 9.1 Lifecycle for a business case



9.2 Identify the areas of feasibility assessment



PESTLE

9.3 Define the **structure** and contents of a business case

- Introduction
- Management (or executive) summary
- Description of the current situation
- Options considered
  - Option description
  - Analysis of costs and benefits
  - Impact assessment
  - Risk assessment
- Recommendations
- Appendices, with supporting information

9.3.1 Categories of **costs and benefits**

	Immediate	Longer term
Tangible	Tangible and immediate	Tangible and longer term
Intangible	Intangible and immediate	Intangible and longer term

9.3.2 **Impact assessment**
In addition to the costs and benefits already mentioned, for each of the options any impacts that there might be on the organisation need to be explored.
Organisation structure / Interdepartmental relations / Working practices / Management style / Recruitment policy / Appraisal and promotion criteria / Supplier relations

9.3.3 **Risk assessment**
A comprehensive risk log (sometimes called a risk register) is probably not required until the change project starts but the principal risks should be highlighted in the business case.
To record: Description, Impact assessment, Probability, Countermeasures, Ownership.

9.4 List the key features relevant to the production of a business case within an **Agile context**
Basic elements – options, costs, benefits, impacts and risks
Shorter time, smaller budget, reduced risks, partial return earlier (ROI)

9.5 Identify the elements of a CARDI Log
Constraints, Assumptions, Risks, Dependencies and Issues

9.6 Explain the purpose of the following investment appraisal techniques

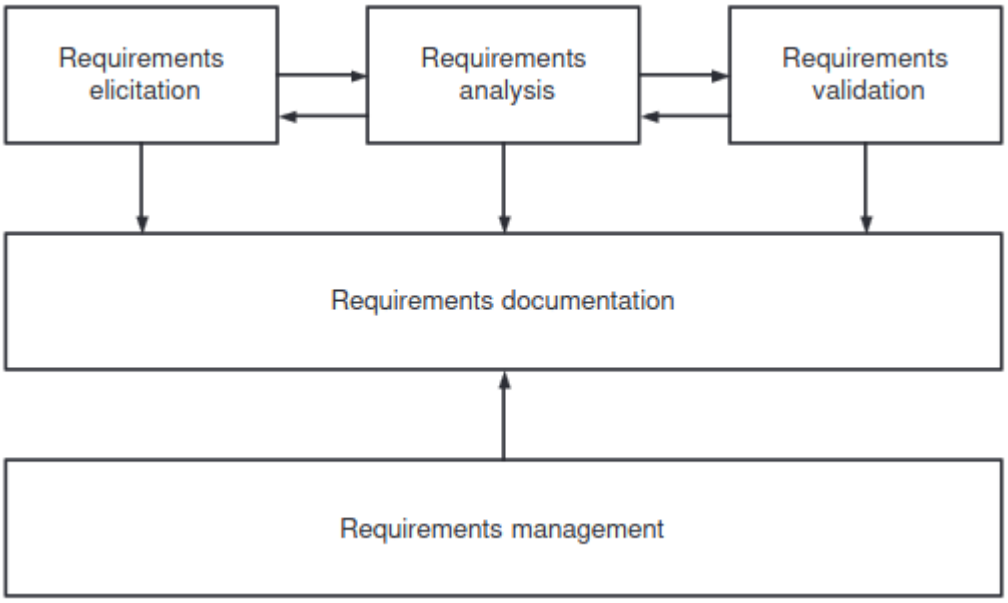
Business cases need to include calculations that use the quantified costs and benefits to identify the financial implications of each option.

9.6.1 **Payback**
The most straightforward technique concerns a ‘payback’ calculation, which is in effect a cash-flow forecast for the project.

9.6.2 **Discounted cash flow** and **net present value (NPV)**
A method that takes account of the time value of money is known as DCF and this leads to an NPV for the project. This means that all of the cash flows accumulated in the years after Year 0 are ‘discounted’ or adjusted to today’s value of money.

9.6.3 Internal rate of return (IRR)
This is a calculation that assesses the ROI from the project in terms of a single percentage figure. IRR is worked out by reversing the DCF/NPV calculations.

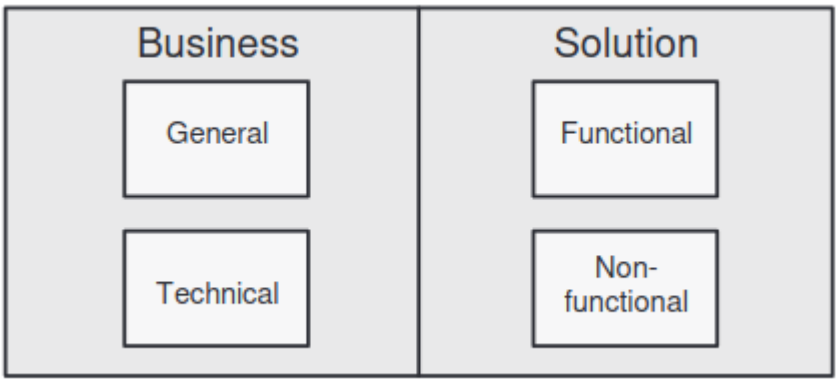
10. Establishing the Requirements (10%) Candidates will be able to:
10.1 Explain the requirements engineering (RE) framework



10.2 Identify the following actors in requirements engineering
10.2.1 The business representatives
Several actors represent the organisation or business area during a project:
Project sponsor, Product owner, Subject matter expert, Business staff/

10.2.2 The project team
Project manager, Business analyst, Developer, Software tester.

10.3 Identify the types of requirement



10.4 Describe the hierarchy of requirements
Requirements do not stand alone but are linked through a hierarchy. They are all driven by the organisation's values, strategy, objectives and performance measures.

10.5 Describe requirements elicitation techniques
- Workshop (visualisation, modelling, CSF analysis, scenario analysis, prototyping)
- Interviews
- Document analysis
- Scenario analysis (also for tacit knowledge)
- Prototyping (also for tacit knowledge)

10.5.1 The term **tacit knowledge**
refers to other aspects of the work that a stakeholder is unable to articulate or explain.

10.6 Identify the following elements of requirements analysis
10.6.1 Requirements filters
Less useful in Agile

Key analysis filters:
- Unravelling multiple requirements
- Checking for overlapping or duplicate requirements
- Confirming relevance of the requirement
- Evaluating feasibility (technical, business, financial)
- Removing conflicts
- Checking for solutions
- Confirming quality of expression (clear, concise, consistent, relevant, unambiguous)

10.6.2 INVEST
Provides a quality check used to evaluate and improve user stories

INVEST attribute	Each user story/product backlog item:
Independent	Should not be dependent on other user stories but should be discrete and atomic.
Negotiable	Should provide a brief description of a required feature that is a basis for elaboration, clarification and prioritisation through collaborative negotiation.
Valuable to users or customers	Should be outcome or goal focused and offer potential value to customers.
Estimatable	Should be able to be estimated either in terms of its relative size or the amount of development effort it would require.
Small	Should be of a suitable size for iteration planning and development within a timeboxed iteration.
Testable	Should include specific measures that may be tested to evaluate whether or not it has been achieved.

10.6.3 Prioritising requirements using **MoSCoW**
Must Have > Should Have > Could Have > Want Have

10.6.4 **Business rules**

- **Constraints** - are rules that govern what may or may not be done (action governance, data constraints).
- **Operational guidance** - sets out the rules that should be applied to decide how a transaction may be conducted (decision conditions, calculations).

11. Documenting and Modelling Requirements (10%) Candidates will be able to:

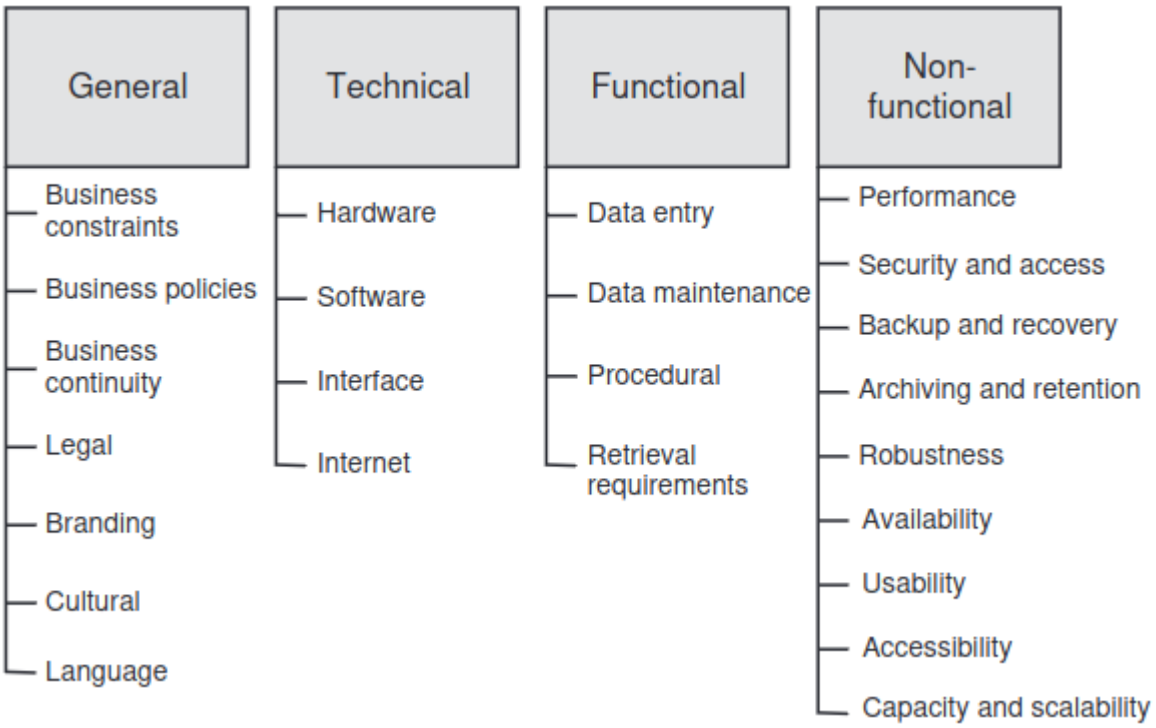
11.1 Identify the following documentation styles
11.1.1 Text-based documentation style

- requirements catalogue;
- user story.

11.1.2 Diagrammatic

- data model;
- use case model;
- business process model.

11.2 List elements of a requirements catalogue



11.3 Describe the format of user stories (3C)
Card, Conversation, Confirmation
Who? What? Why?
As a {user role} I want {feature} so that I can {reason}

11.4 Describe the elements of the use case diagram used to model functional requirements

- Actors
- Use case
- System boundary
- Associations

11.5 Describe the elements of a **class model** used to model data
Class modelling from UML is an alternative data modelling technique. A **class** is a set of attributes that collectively describe something of interest to a system. A class model is a graphic representation of all of the classes in a business system and their associations with each other.

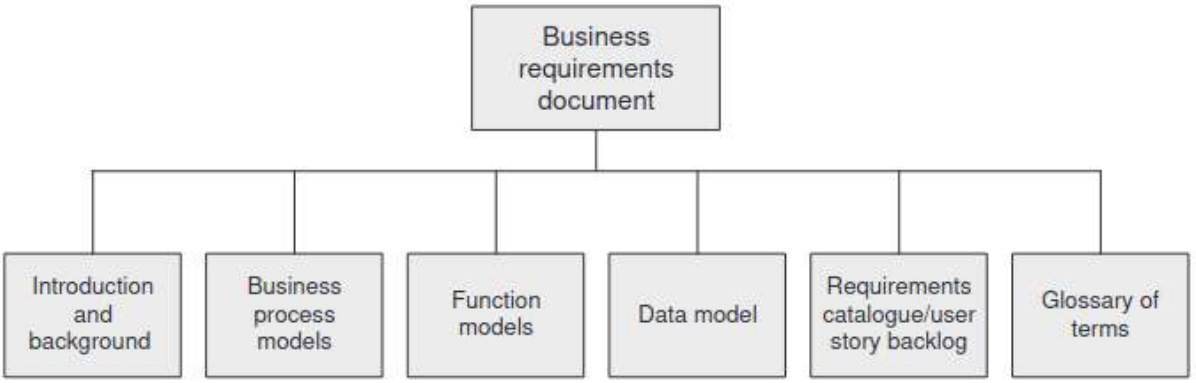
- Object
- Class
- Association (?)

ERD - Entity Relationship Diagram (drawn with the CACI notation in the textbook).
Entities can be

- Physical
- Conceptual
- Active

11.6 Describe the product backlog in modelling and documentation in an Agile environment

11.7 Define the structure of the business requirements document (**BRD**)



12. Validating and Managing Requirements (5%) Candidates will be able to:
12.1 Describe the following types of requirements validation
12.1.1 Formal requirements validation

- The review group
- Collating review comments
- Review outcomes

12.1.2 The activities in the Agile requirements validation process
Two stages:

- When **initiating** the project: the **outline** solution is **determined** and the backlog is established.
- When **maintaining** the backlog: work items are **refined** until they are deemed 'ready' to progress into development.

Complex requirements need detailed analysis before further development:

- **Compound** requirements - need to be decomposed (often non-functional requirement)
- **Complex** requirements - where business rules require decomposition. Require discussions with SMEs.

12.2 Describe the following aspects of requirements management
12.2.1 **Traceability**

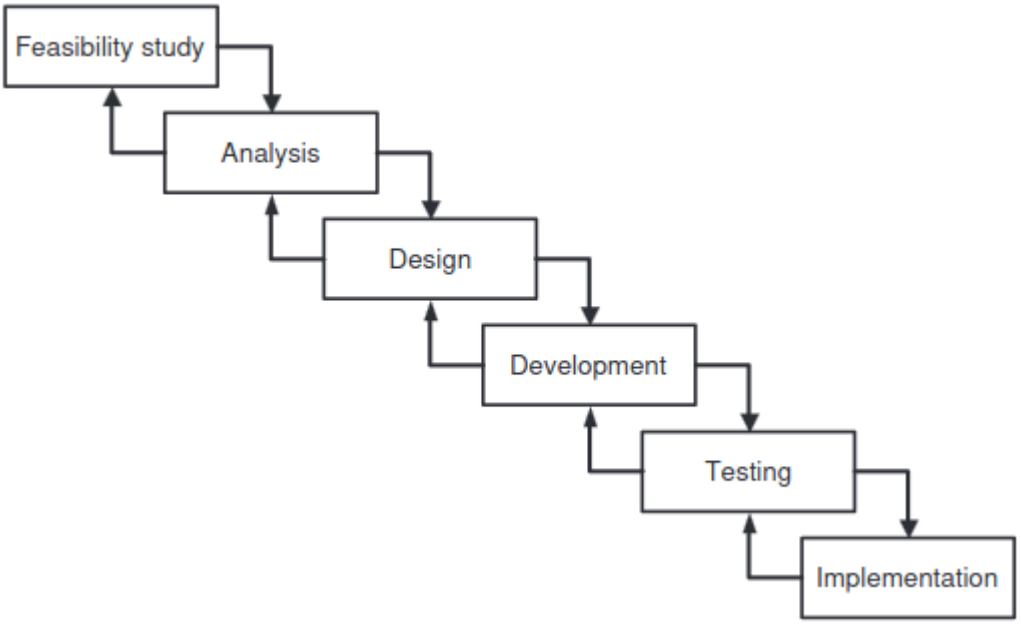
- Backwards from - to find the source
- Forwards to - to find the path/development

Can be

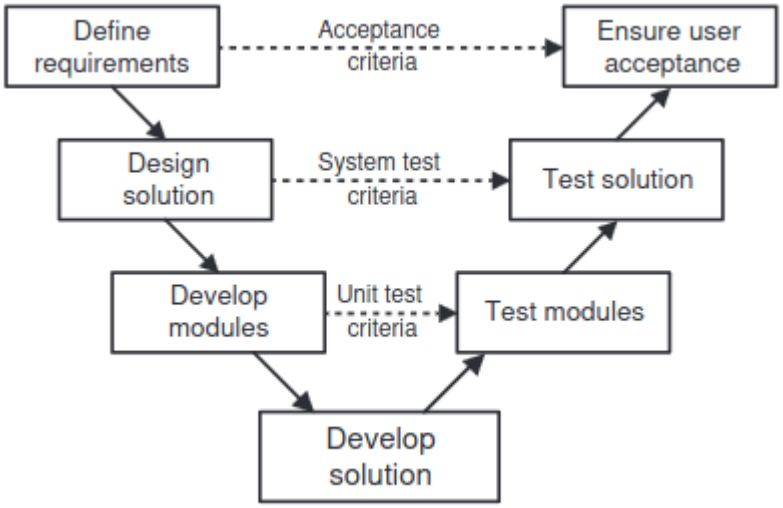
- Horizontal - requirements to features
- Vertical - strategy > business requirements > solution requirements

12.2.2 Change control

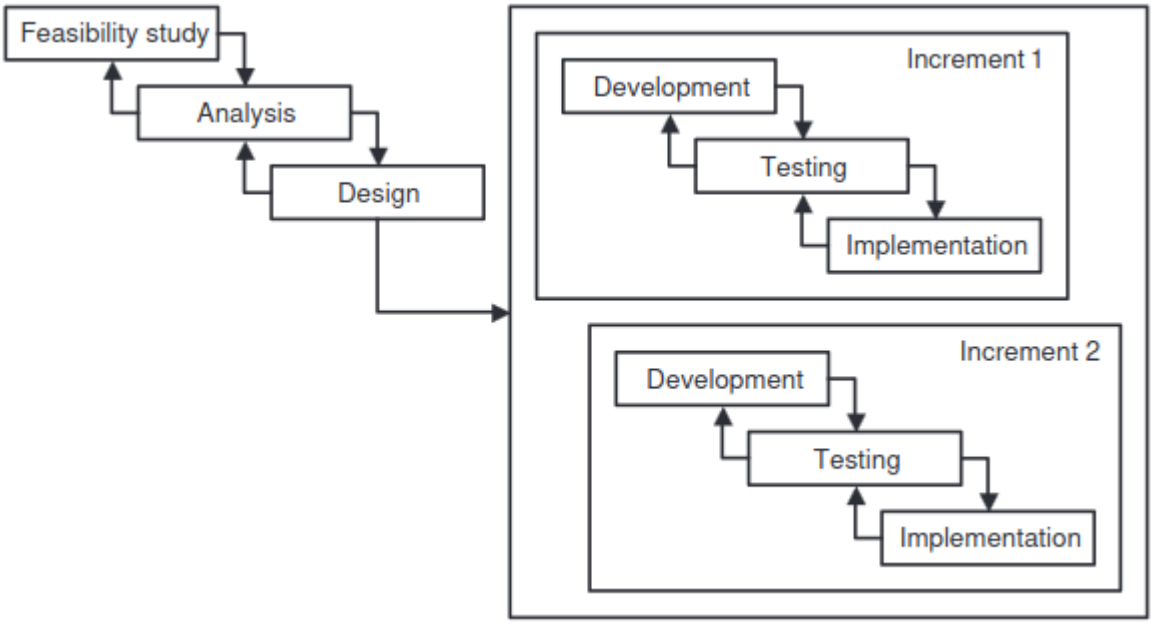
13. Delivering the Requirements (5%) Candidates will be able to:
13.1 Describe the following types of delivery lifecycle
13.1.1 The waterfall lifecycle



13.1.2 The “V” model



13.1.3 The incremental lifecycle



13.1.4 The stages of the iterative lifecycle (Agile)

- Establish business need and evaluate options
- Establish solution backlog
- Plan solution increment
- Develop solution
- Deploy and evaluate solution increment

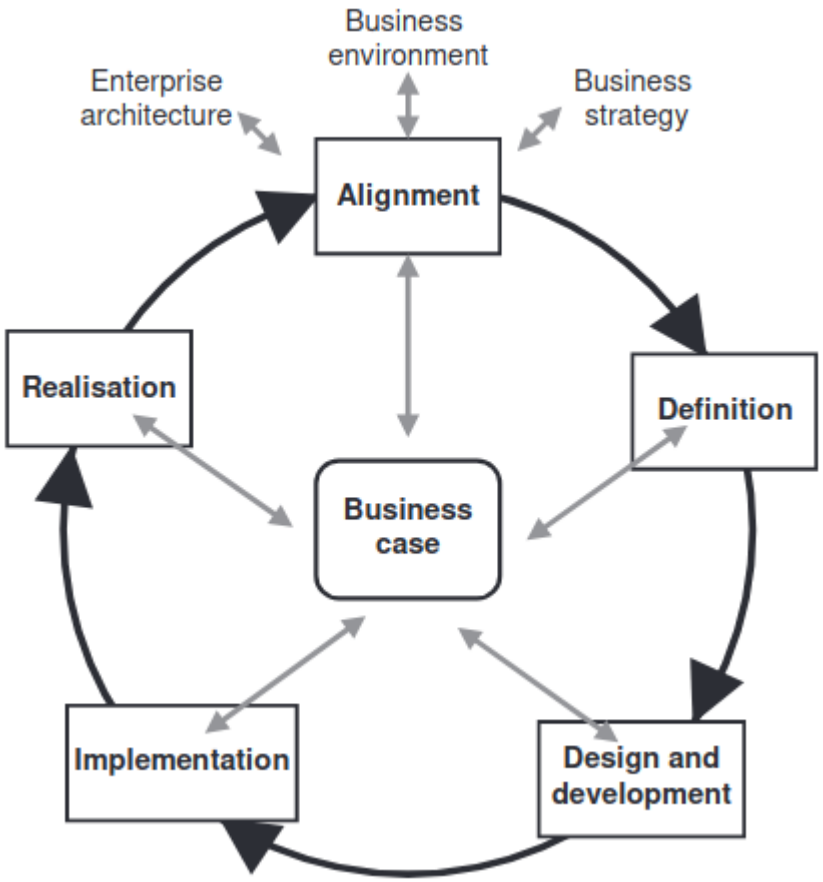
13.2 Explain advantages and disadvantages of the lifecycles
Waterfall, V, Incremental:

- Has to be define at the outset
- Unlikely that actors know what they want early
- May not be possible to implement changes when required
- Business changes rapidly so requirements can be out of date quickly.

Iterative/Agile:

- Not always possible to allow requirements to evolve. Sometimes they need to be set early.
- Potential for a fragmented view, without an overview.
- Frequent releases can be unacceptable to customers, as this can require updates/changes.

14. Delivering the Business Solution (5%) Candidates will be able to:

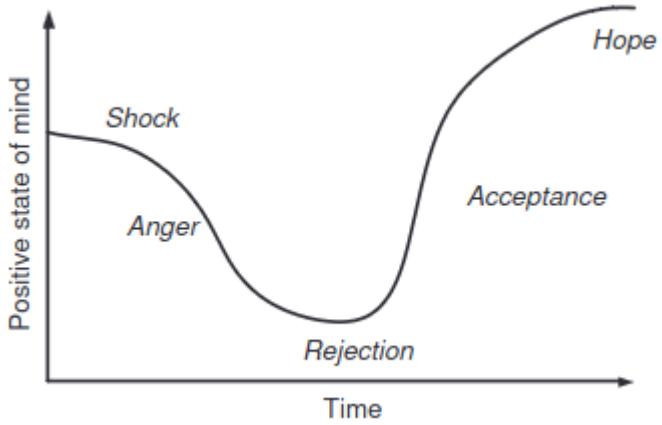


14.1 Explain the **role** of the business analyst in the business change lifecycle
Business analysis helps organisations to understand where changes are needed and to develop and implement these changes successfully; the role of the business analyst is therefore relevant across the entire change lifecycle.

14.2 Describe the role of the business analyst during the design, development and test stages (**DDT**)

- Design - facilitate communication, develop models and documentation, clarify requirements, make sure requirements can be fulfilled
- Development - support business and development staff, assess the impact of software, identify problems and find solutions
- Testing - user acceptance testing. Use techniques to define test cases and test scenarios: use case descriptions, decision tables, state charts.

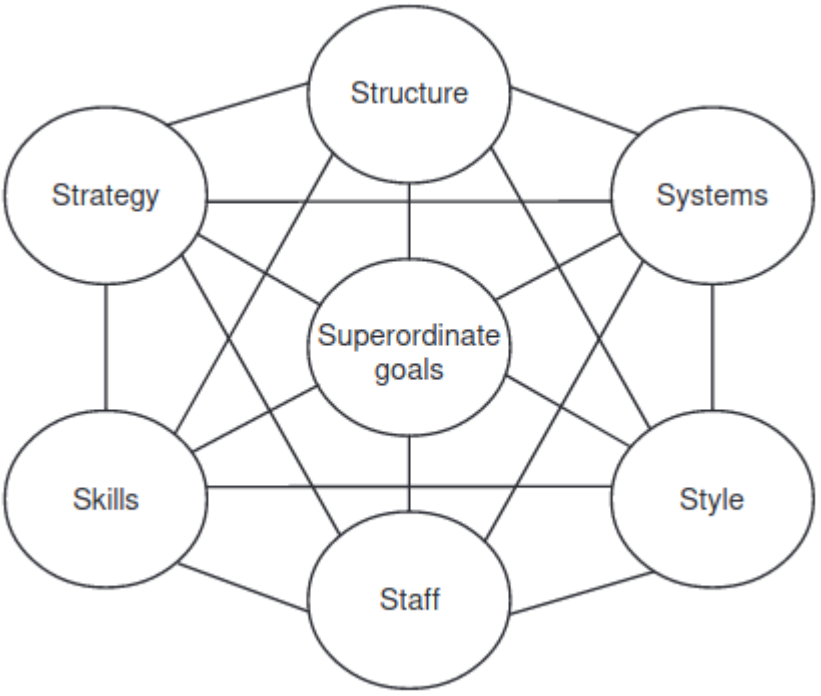
14.3 Describe the following approaches used in the implementation stage
14.3.1 SARAH model



14.3.2 The purpose of the business readiness assessment
Analysing if the business area where changes are to be made is sufficiently prepared to accept and operate the new ways of working.

Frameworks:

- McKinsey's 7S - Strategy, Structure, Systems (hard), Skills, Staff, Style (soft), Superordinate Goals (center)
- CPPOLDAT - Customer, Product, Process, Organisation, Location, Data, Application, Technology
- POPIT - People, Organisation, Processes, Information and Technology



14.4 Describe how the benefits plan is used in the realisation stage

Table 14.3 Elements of a benefits plan

Benefits plan element	Description
Context/vision	The background for the change project that provides a wider business context for the predicted benefits.
Benefits profiles	A full description of each of the benefits, including the type of benefit and the identified benefit owner (see below). Each benefit profile includes: a benefit identifier and name, the benefit owner, the stakeholders involved or interested in the benefit, relevant measures and dependencies associated with the benefit.
Benefits dependency network	The benefits dependency network shows the enabling and lasting business changes required to deliver the predicted business benefits. The dependencies between the benefits and the ultimate business objectives are also shown; see Figure 14.7.
Responsibilities	A list of the benefit owners and their responsibilities.
Tracking procedures	The process for monitoring and reporting on the benefits.

Sample questions

https://www.bcs.org/media/8257/ba-foundation-specimen-answer.pdf

https://quizlet.com/ie/448050560/business-analysis-sample-paper-2-flash-cards/