

College of Humanities
Master of Financial
Technology-
FinTech

Business Analysis

FNT613

Lecture 3

Prepared By:
Dr. Abeir Moussa



THE BUSINESS ANALYSIS PROCESS MODEL

FNT613

3rd Lecture

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Dr. Abeir Moussa



THE BUSINESS ANALYSIS PROCESS MODEL

Week4

Chapter4

Lecture 3

Learning objectives

- **Learn the Stages of the Business Analysis Process Model**
- **Understand the approach to Problem Solving**
- **Learn the Key Activities and Techniques in Business Analysis**
- **Understand the Importance of Stakeholder Management**
- **Develop skills in gathering requirements from stakeholders and analyze them**
- **Learn to Analyze and Evaluate Potential Solutions**
- **Develop Skills in creating a business requirements document that conforms to industry best practices.**

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Chapter outline

INTRODUCTION

1. AN APPROACH TO PROBLEM SOLVING
2. THE BUSINESS ANALYSIS PROCESS MODEL
3. INVESTIGATE SITUATION
4. ANALYSE NEEDS
5. EVALUATE OPTIONS
6. DEFINE REQUIREMENTS
7. DELIVER CHANGES
8. CONCLUSION

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INTRODUCTION

There are many tools and techniques available for the business analyst to use and, because of the nature of business analysis work, an overview framework is useful to place these in context and help determine the most appropriate technique for each individual situation.

In this chapter we have set out a **Business Analysis Process Model** as a framework within which both standard modelling techniques and organizational templates can be used.

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1. AN APPROACH TO PROBLEM SOLVING

1. **Introduction**
2. **Mess findings**
3. **Data finding**
4. **Problem finding**

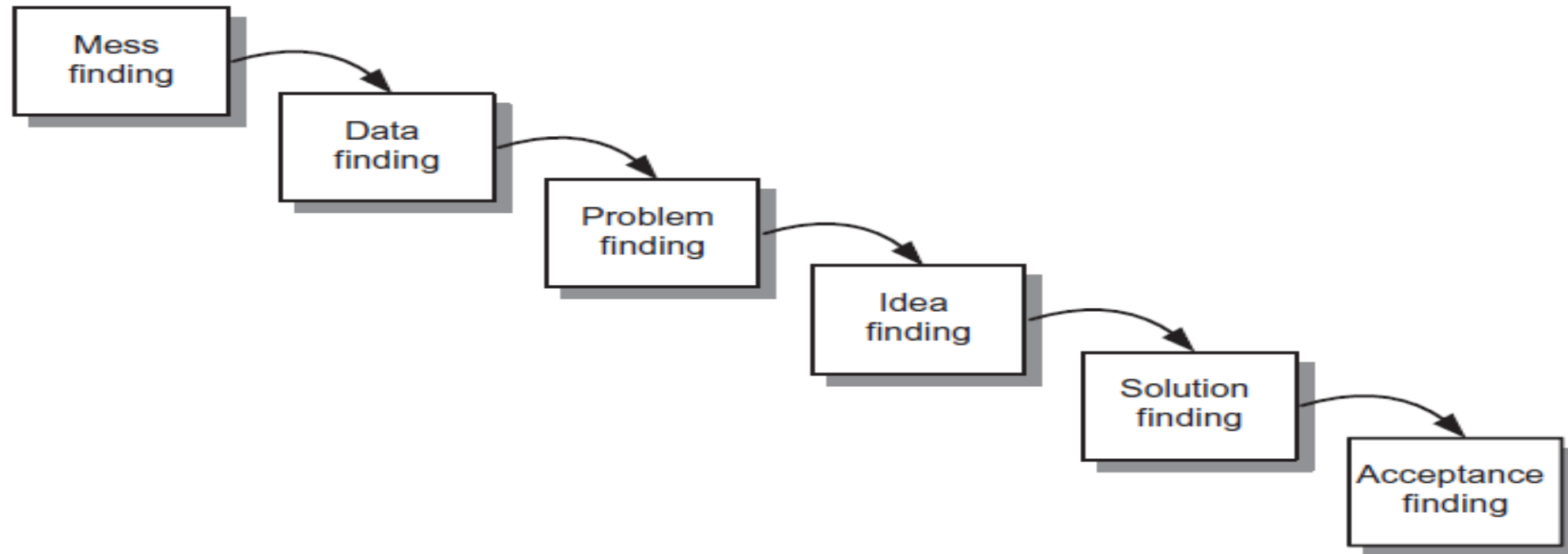
1. AN APPROACH TO PROBLEM SOLVING

- **Introduction**

This approach incorporates the principle One of the requirements of business managers is that business analysts examine the entire business area and take a thoughtful, even creative, approach to developing ideas for solutions. Creative problem solving is vital in the business world as, increasingly, organizations need to develop innovative ideas in order to respond to changes in the business environment including actions from competitors.

1. AN APPROACH TO PROBLEM SOLVING

Figure 4.1 A problem solving model (after Isaksen and Treffinger, 1985)



1. AN APPROACH TO PROBLEM SOLVING

1.1 Mess Finding

The first stage of the model is where we often begin when undertaking a problem investigation. In business analysis this stage is concerned with finding out about the complexity of the problem situation. Many problems are poorly defined or ambiguous, and each problem situation is likely to be complex and contain various issues and concerns.

In other words, there is likely to be a 'mess' and different situations will have different components to that mess.

The rich picture diagram, is particularly useful to help document and analyze the 'mess' in problematic business situations.

Rich pictures do not use a defined notation set and the flexibility this offers enables us to use them to represent any situation.

1. AN APPROACH TO PROBLEM SOLVING

1.2 Data Finding

The second stage of the model, is concerned with analyzing the opinions, concerns, knowledge and ideas uncovered in the previous stage, in order to identify where this information can be quantified and supporting data obtained. It is often useful to examine the **rich picture, mind map or fishbone diagram** to clarify our thinking about the situation. This can help lead us to the aspects that we can, and should, verify and also emphasizes the need to divorce opinion, whilst useful, from fact.

1. AN APPROACH TO PROBLEM SOLVING

1.3 Problem Finding

Sometimes this works but often different approaches need to be used with **brainstorming** to stimulate ideas and so during this stage **it may be useful to use some creative thinking techniques**. Two examples of techniques that can provide stimuli for creative ideas are 'Assumption Reversal' – where **assumptions about a situation are listed and reversed** – and 'Random Words or Pictures' – where unrelated words or pictures are used to generate different ideas about a situation. Business analysts are often expected to deliver solutions quickly, yet here it is important to resist the pressure to develop solutions at too early a stage; there are other aspects that need to be considered first.

Also, **Isaksen and Treffinger (1985)** stress the importance of identifying criteria to help evaluate potential solutions and this would not be possible without the earlier work. Therefore, it is important to work through the earlier stages as they will help to develop better, more appropriate solutions that will be more beneficial for the business situation.

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2. THE BUSINESS ANALYSIS PROCESS MODEL

- **INTRODUCTION**
 1. **INVESTIGATE SITUATION**
 2. **CONSIDER PERSPECTIVES**
 3. **ANALYZE NEEDS**
 4. **EVALAUATE OPTION**
 5. **DEFINE REQUIRMENTS**
 6. **DELIVER CHANGES**

2. THE BUSINESS ANALYSIS PROCESS MODEL

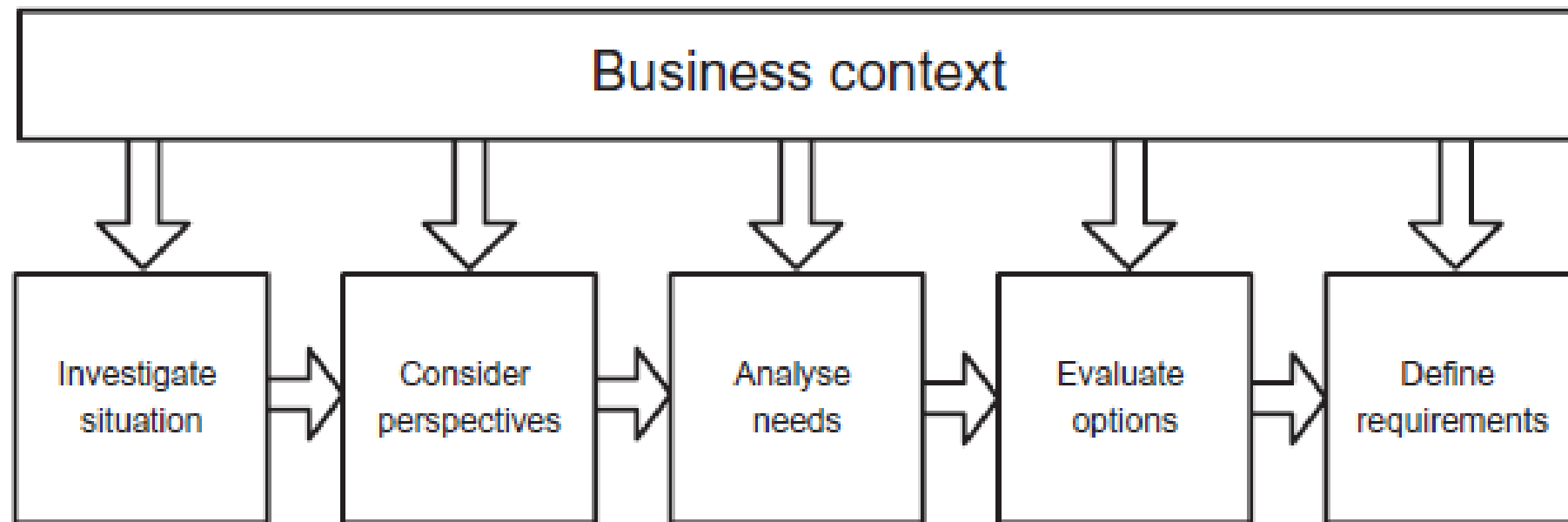
■ INTRODUCTION

One of the aspects that makes business analysis work so interesting is the range and nature of business analysis projects. The business systems under consideration can be very varied; for a particular project business analysts may need to apply several techniques and analyze a number of different stakeholder views. Other projects may require the business analyst to analyze and document specific business or system requirements. **The process model shown in Figure 4.2 is intended to meet these challenges.**

The top stripe of the process model shows the importance of understanding the business context. Within this context, we need to be aware of the **Mission, Objective, Strategy and Tactics (MOST)**, as described in Chapter 3. However, it should be noted that whilst some projects may require a detailed exploration of all of the stages, other projects may focus on a subset of the model, possibly just one stage. One of the most important aspects of a business analysis project is to decide what the focus is and which areas need to be investigated. For example, on some projects the focus may be to explore possible improvements to how part of the organization works.

2. THE BUSINESS ANALYSIS PROCESS MODEL

Figure 4.2 The Business Analysis Process Model



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2.1 INVESTIGATE SITUATION

1. Investigation techniques
2. Documenting business situations



2. THE BUSINESS ANALYSIS PROCESS MODEL

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.1 INVESTIGATE SITUATION

The terms of reference for the project, or possibly a more detailed project initiation document, are needed in order to set out the context within which the business analysis work will take place. The **OSCAR** mnemonic can be very useful when clarifying the terms of reference if none exist.

➤ **OSCAR mnemonic**

Objectives: The business and project objectives to be achieved.

Scope: The area of the business to be investigated and the required deliverables.

Constraints: The time, budgetary and policy constraints within which the work must be conducted.

Authority: The person who is responsible for receiving the deliverables and agreeing that the work has been completed.

Resources: The resources, both human and physical, available to the project.

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.1 INVESTIGATE SITUATION

A key area for the analyst is to clarify the objectives of the study and tailor the approach accordingly – often a task that requires a good deal of skill. It is important to investigate the situation further in order to determine where the real problems lie, and ensure that symptoms of the problems are not confused with the real issues. Once the analyst has begun to understand the situation and clarify some of the ambiguity that exists, it will be necessary to create documentation recording the findings.

1. Investigation Techniques

There are many investigative approaches that business analysts can use and these are explored in detail in the future Chapters. It is important to consider the range of possible investigative approaches and choose those that are most appropriate to the work in hand. The level of detail required during this stage may vary considerably depending on the focus of the business analysis work.

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.1 INVESTIGATE SITUATION

1. Investigation Techniques

If the analyst is trying to gain an overall appreciation of the business area, for example, to identify the key stakeholders and acquire an understanding of their views and opinions, or to appreciate the nature of the work and the range of people and skills, then often the techniques used will be those that provide an overall perspective and generalized view; **interviewing**, **observation** and **workshops** would be particularly useful. However, if the work is concerned with eliciting more detailed information such as data requirements or the flow of a business process then the most appropriate fact finding techniques are those that focus on the detail such as **document analysis**, **scenario analysis** or **prototyping**.

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.1 INVESTIGATE SITUATION

2. Documenting Business Situations

There are a number of useful techniques for documenting and visualizing the initial investigation of a business system. It is typical that a high-level overview of the situation will be required during the initial investigation, particularly where the issues are complex and originate from different causes.

Fishbone diagrams can also be very useful during investigation as they help to uncover the root causes of problems.

Other techniques may also be useful where specific issues have been identified.

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2.1 INVESTIGATE SITUATION

3. Stage summary

- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Procedure***

- Study background material – project initiation document, terms of reference
- Carry out initial investigation with key stakeholders
- Document the results of the investigation – using meeting reports plus diagrams such as a ‘rich picture’, mind-map or fishbone diagrams

- ***Inputs***

- Terms of reference or project initiation document
- MOST, statement of business values

- ***Outputs***

- View of the existing business situation, including meeting reports and diagrams such as rich pictures, mind maps and fishbone diagrams
- List of issues/problems

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage Summary

Techniques

- Investigation techniques such as interviewing, observation and workshops
- Quantitative investigation techniques such as surveys, sampling and document analysis
- 'Rich pictures' (from Soft Systems Methodology, developed by Checkland (1999))
- Mind maps (Buzan and Buzan, 2009)
- Spaghetti maps
- Fishbone diagrams (Ishikawa – these are also known as Ishikawa diagrams after their inventor Kaoru Ishikawa (1985))
- Business process models

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2. THE BUSINESS ANALYSIS PROCESS MODEL

2.2 CONSIDER PERSPECTIVES

1. Stakeholder identification and analysis
2. Stakeholder perspectives
3. Business activity modelling
4. Stage summary

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.2 CONSIDER PERSPECTIVES

This stage is concerned with analyzing stakeholders and their perspectives on the business situation. Many stakeholders hold very strong views about why problems exist, what needs to be done to improve the situation and where the focus of the business system should lie. Where some of the issues arise from differences in stakeholder views it is vital that they are explored and where possible taken into account when making recommendations for the way forward.

1. Stakeholder Identification and Analysis

Every business situation will affect a range of individuals and organizations. Among this group there will be people or groups with varying levels of interest and power. Many stakeholders hold very strong views about why problems exist, what needs to be done to improve the situation and where the focus of the business system should lie. Where some of the issues arise from differences in stakeholder views it is vital that they are explored and where possible taken into account when making recommendations for the way forward.

2.2 CONSIDER PERSPECTIVES

2. Stakeholder Perspectives

Stakeholders often have different views on what is important about a business system and, as a result, have different ideas about the improvements that are needed. We can often detect where the different stakeholder conflicts might originate by considering the underlying set of values and beliefs they hold. For example, we might reflect on what an individual stakeholder considers to be the main focus of the business system and, critically, why this is the case.

2.2 CONSIDER PERSPECTIVES

3. Business Activity Modelling

The stakeholder perspectives can be analyzed further by considering the business activities that would be required to fulfil a particular perspective. This approach, developed from Checkland's work, and extended by Wilson (1990), allows analysts to build a conceptual model of a business system as envisaged by a particular stakeholder. For example, where a manager believes an events organization should focus on quality then there would be an emphasis on activities such as:

- the recruitment and development of highly-skilled staff;
- the introduction of customer-focused processes;
- monitoring of customer satisfaction levels.

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2.2 CONSIDER PERSPECTIVES

4. Stage summary

- *Objectives*
- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

4. Stage summary

- *Objectives*

The objective of this stage is to take stock of the range of stakeholder perspectives about the business system under investigation. These perspectives may then be analyzed to uncover stakeholder values and beliefs, and developed into business activity models. However, where there is a narrow remit for the business analysis work, for example if we are concerned primarily with improving a particular process, while it will be important to identify and manage the stakeholders, consideration of the entire business system may be beyond the scope of the business analysis work.

4. Stage summary

- ***Procedure***
 - Identify key stakeholders whose perspectives are important to the business analysis project
 - Investigate the values, beliefs and priorities of the key stakeholders
 - Develop and analyze the stakeholder perspectives
 - Build conceptual models of activities to fulfil the stakeholder perspectives
 - Explore and resolve conflicts between stakeholder perspectives
 - Synthesize conceptual models into one view of the desired business system

2. THE BUSINESS ANALYSIS PROCESS MODEL

4. Stage summary

- ***Inputs***

- Terms of reference or project initiation document
- Business values and MOST
- Identified stakeholders (from the documentation of the existing business system)

- ***Outputs***

- Power/Interest grid
- Stakeholder perspectives
- Business activity models based upon stakeholder perspectives
- Consensus business activity model

- ***Techniques***

- Investigation and negotiation techniques
- Stakeholder identification and analysis
- CATWOE
- Business Activity Modelling

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2. THE BUSINESS ANALYSIS PROCESS MODEL

2.3 ANALYSE NEEDS

1. **Analyzing Activities**
2. **Analyzing business processes**
3. **Stage summary**

2.3 ANALYSE NEEDS

The focus of this stage is to identify where improvements can be made to the business system. **The approach used is known as 'gap analysis'** whereby a current or **'as is' view** is compared with a desired, future or **'to be' system**. This method contrasts with the traditional, more systematic approach to business or systems improvement where new features are added on to an existing set of procedures or IT system functions.

1. Analyzing Activities

Where you have developed a **business activity model** from a stakeholder perspective, this can be used to carry out a detailed analysis of the desired business system by examining each activity in turn. As the model provides a conceptual picture of the desired business activities it allows the business analyst to see where the current business system is lacking. However, others may be inadequate in the current business system and some may not exist at all. The business activity model may identify a range of areas to be considered in the light of the current business situation.

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.3 ANALYSE NEEDS

2. Analyzing Business Processes

At a more detailed level, gap analysis focuses on the business processes that are applied within the business system. Whereas the activities modelled on the business activity model shows conceptual view of what activities should be within the desired business system, **the business process models allow us to consider how the work is carried out**. Therefore, the analysis is conducted at a more specific level of detail and, rather than being conceptual, is much closer to the physical reality of the business system. **A business process is initiated by a business event**, which is sometimes **called a 'trigger'**, and concludes when the goal of the process has been achieved. The approach we take to this work is to model the current business process and then to consider possible changes to the process before finalizing the required process. When redesigning a process we can look for small changes that affect one or two process steps or we might decide to design a completely new process.

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2.3 ANALYSE NEEDS

3. Stage summary

- *Objectives*
- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Objectives***

Explore the differences between the current and desired situations. To identify the opportunities for business change by analyzing these differences or 'gaps'.

- ***Procedure***

- Examine the activities on the business activity model
- Consider how well each activity is carried out in the current business system and how well it is supported by the organization's information systems
- Identify the key business events to be handled within the business system; develop 'as is' business process models for the key business events
- Develop 'to be' business process models for the key business events
- Analyze the gaps between the existing and the desired business systems. Use these as a basis for identifying potential business system improvements
- Ensure any potential improvements align with the business architecture

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage Summary

- ***Inputs***
 - Agreed business activity model
 - View of the existing business system
 - Business values and MOST
- ***Outputs***
 - Analysis of activities, including identified areas of weakness
 - As is' and 'to be' business process models
 - List of potential improvements to the business system
- ***Techniques***
 - Gap analysis
 - Activity analysis
 - Business process modelling

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2. THE BUSINESS ANALYSIS PROCESS MODEL

2.4 EVALUATE OPTIONS

- 1. Identify potential options**
- 2. Assess feasibility**
- 3. Stage summary**

2.4 EVALUATE OPTIONS

1. Identify potential options

The first step is to identify possible options by considering where improvements might be made and which ones would result in the greatest potential benefits. Once a number of options have been identified these can be reduced to a shortlist of options to be defined in further detail. The business values, MOST and business architecture need to be considered as part of the development and evaluation of options as they must be supported by, and aligned with, any changes.

2. THE BUSINESS ANALYSIS PROCESS MODEL

2.4 EVALUATE OPTIONS

2. Assess feasibility

All of the options that are to be considered in detail need to be evaluated for business, technical and financial feasibility. In addition, areas such as the impact of options on the organization, and the risks that may be associated with an option, also need to be considered as they will affect the acceptability of the option. Impacts and risks may give rise to additional costs that need to be fed into the cost–benefit analysis for the option. Consideration of the business values and MOST should also form part of this work as any new business system will need to be aligned with the values and strategy, and support delivery of the business objectives.

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2.4 EVALUATE OPTIONS

3. Stage summary

- *Objectives*
- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Objectives***

The objective of this stage is to collect together the range of potential changes into packages of improvement actions. These packages form the basis for developing a set of options that are then developed and documented in further detail.

- ***Procedure***

- Identify range of business options
- Explore acceptability of options and reduce to a shortlist
- Develop and document each option in detail. In particular, consider the business, technical and financial feasibility of each option
- Develop business case, including presenting options and recommendations to business managers

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Inputs***

- Project initiation document/terms of reference
- Business values and MOST
- List of potential improvements to the business system

- ***Outputs***

- Shortlist of business options
- Business case including options, feasibility assessment and recommendations

- ***Techniques***

- Business options identification
- Cost–benefit analysis, including quantification of costs and benefits; investment appraisal techniques
- Impact analysis
- Risk analysis

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2. THE BUSINESS ANALYSIS PROCESS MODEL

2.5 DEFINE REQUIREMENTS

1. Requirements engineering
2. Modelling systems
3. Stage summary

2.5 DEFINE REQUIREMENTS

1. Requirements Engineering

The requirements engineering approach has been developed as a response to the lack of rigor often found in requirements documentation. Requirements engineering proposes is a framework to help analysts improve their requirements work by highlighting the need for proactive analysis, organization, documentation and management of stated requirements.

2. Modelling systems

For example, techniques such as class modelling and entity relationship modelling provide a clear and unambiguous means of documenting the system data; techniques such as activity diagrams provide a clear representation of processes. Business analysts find such techniques extremely useful when exploring requirements as they help to build rigor into the requirements analysis activity.

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2.5 DEFINE REQUIREMENTS

3. Stage summary

- *Objectives*
- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Objectives***

The objective of this stage is to produce a well-formed requirements document setting out the business requirements for the new business system. Modelling techniques may be used to represent the process and data requirements diagrammatically and hence improve the rigor and clarity of the requirements definition.

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Procedure***

- Gather the requirements:

- elicit and analyze the business requirements for the new business system;
- document and manage the requirements;
- validate the documented requirements.

- Document the requirements for the new business system, including as appropriate:

- business process models;
- catalogue of business requirements;
- models of the IT processing and data;
- glossary of terms.

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Inputs***

- Selected option for revised business system
- Business values and MOST
- Terms of reference/project initiation document

- ***Outputs***

- 'To be' process models
- Job definitions
- Revised organizational structure
- Validated requirements document including:
 - requirements catalogue;
 - models of business process and system requirements;
 - glossary of terms.

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Techniques***

- Business process modelling
- Job design
- Investigation techniques
- Requirements elicitation, analysis and validation
- Requirements documentation and management
- IT systems modelling techniques

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2. THE BUSINESS ANALYSIS PROCESS MODEL

2.6. DELIVER CHANGES

1. Delivering the requirements
2. Implementing the business changes
3. Stage summary



2.6 DELIVER CHANGES

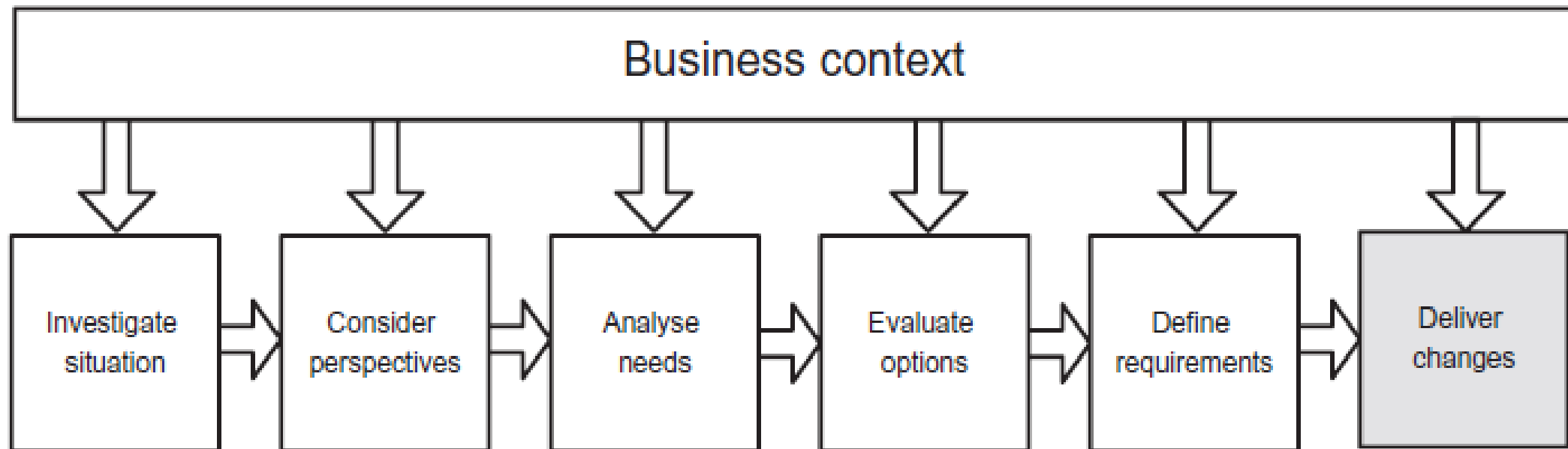
1. Delivering the requirements

The requirements will need to be developed into the business change solution. This solution may include process, people, organizational and IT system change. The lifecycle and approach to be adopted to develop and deliver the changes will need to be determined. This decision will have an impact upon the roles of the project team, the deliverables to be produced and the techniques to be used. The extent of the business analyst role will depend upon the lifecycle and approach adopted on the project.

2. Implementing the business changes

The delivery of the business solution will need to consider aspects such as the emotional impact of change and the realization of the business benefits. These issues are discussed in future chapters. The business analyst may be heavily involved in tasks such as designing and documenting the new tasks and procedures, supporting user acceptance testing and reviewing benefits to assess their realization.

2.6 DELIVER CHANGES

Figure 4.3 Extended Business Analysis Process Model

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2.6 DELIVER CHANGES

3. Stage summary

- *Procedure*
- *Inputs*
- *Outputs*
- *Techniques*



2. THE BUSINESS ANALYSIS PROCESS MODEL

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Procedure***

- Decide the lifecycle and approach to be adopted
- Design and develop the business change solution
- Support the planning and implementation, in particular the development of the required learning materials and the delivery of training for the business staff
- Review the predicted benefit
- Identify any actions required to realize the benefits

- ***Inputs***

- Business change process and organization design
- IT software solution
- Business case

2. THE BUSINESS ANALYSIS PROCESS MODEL

3. Stage summary

- ***Outputs***
 - Business change plan
 - Communication plan
 - Training approach and materials
 - Revised job roles and descriptions
 - Benefits plan
 - Benefits review document
- ***Techniques***
 - Use case descriptions
 - Decision tables
 - State charts
 - Benefits planning

CONCLUSION

Business analysis projects are usually concerned with improving the working practices within business systems. This may involve changes to a range of aspects that form the business system including staff capability, business processes or the supporting information systems. Increasingly, business analysts are also required to support the development of solutions, delivery of business changes and realization of business benefits. The business analysis process model is intended to help business analysts in deciding how to structure and conduct their assignments. The model also includes references to some of the techniques in popular use and identifies when these techniques may be particularly useful.

REFERENCES

- **Required Reference:**

Debra Paul and James Cadle, et al, (2020). "Business Analysis". BCS, 4th Edition. ISBN:978-1-78017-5102

- **Recommended Reading**

James Cadle, Debra Paul, Jonathan Hunsley, Adrian Reed, David Beckham, Paul Turner (2021). "Business Analysis Techniques" 3rd Edition, BCS.

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The End of Lecture

Thank You