Business Analyst Training

Agenda

- ❖ The role of a business analyst
- ❖ Business Analysis & Project Management
- ❖ Standard BA framework
- ❖ Planning the requirement development process
- ❖ Analyzing the business landscape
- ❖ Defining the project
- ❖ Developing the delivering the detailed requirement package
- ❖ Supporting downstream development

The Role Of A Business Analyst (Session One)

The role of a business analyst

A business analyst (BA) is responsible for analyzing the business needs of their clients and stakeholders to help identify business problems and propose solutions, using the discipline of business analysis.

The role of a business analyst

Within the systems development life cycle domain, the BA typically performs a liaison function between the business side of an enterprise and the information technology department or external service providers.

The role of the business analyst

Common alternate titles are business systems analyst, systems analyst, and functional analyst, although some organizations may differentiate between the above titles and corresponding responsibilities.

Notes

- □ What is SDLC?

- □ What is a requirement?

The role of a business analyst

The International Institute of Business Analysis has the following definition of the role: A business analyst works as a liaison among stakeholders in order to elicit, analyze, communicate and validate requirements for changes to business processes, policies and

information systems.

The role of a business analyst

The business analyst understands business problems and opportunities in the context of the requirements and recommends solutions that enable the organization to achieve its goals.

Notes

The role of a business analyst

The British Computer Society proposes the following definition of a business analyst: "An internal consultancy role that has the responsibility for investigating business systems, identifying options for improving business systems and bridging the needs of the business with the use of IT." However, this definition is more aligned with business systems analysts.

Notes

Q & A

Business Analysis & Project Management (Session Two)

Business Analysis & Project Management

The disciplines of project management and business analysis are emerging as significant components of successful IT projects.

> *It is now becoming clear that while technical knowledge is necessary, it is not sufficient for successfully managing large, enterprise-wide, complex, and mission-critical projects that are the norm today.*

Business Analysis & Project Management

Breaking the cycle of failed and challenged projects depends on collaboration between the disciplines of business analysis and project management.

Business Analysis & Project Management

The business analyst, project manager, business manager, and solution design/development leads must work in partnership to understand the business need and determine the optimum business solution.

Notes

❖ What is project management?

❖ What is project life cycle?

Business Analysis & Project Management

The customer must be involved throughout the project life cycle to confirm that the deliverable will bring the expected benefits to the business.

Business Analysis & Project Management

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Business Analysis & Project Management

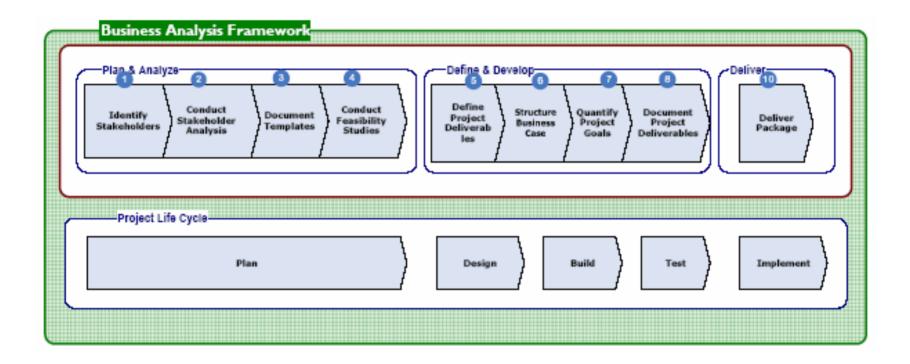The customer must be involved throughout the project life cycle to confirm that the deliverable will bring the expected benefits to the business.

Notes

Q & A

The standard BA framework (Session Three)

The standard BA framework

Business Analysis Framework

Plan & Analyze
1. Identify Stakeholders
2. Conduct Stakeholder Analysis
3. Document Templates
4. Conduct Feasibility Studies

Define & Develop
5. Define Project Deliverables
6. Structure Business Case
7. Quantify Project Goals
8. Document Project Deliverables

Deliver
10. Deliver Package

Project Life Cycle
Plan
Design
Build
Test
Implement

Notes

- What is a framework?

- What is a methodology?

The standard BA framework

Plan & Analyze:

- ❖ Identify stakeholders
- ❖ Conduct stakeholder analysis
- ❖ Document templates
- ❖ Conduct feasibility study

Notes

The standard BA framework

Define & Develop:

❖ Define project deliverables

❖ Structure business case

❖ Quantify project goals

❖ Document project deliverables

Notes

The standard BA framework

Deliver:

❖ Deliver package

Notes

Planning the requirement development process (Session Four)

Planning the requirement development process

❖ Identifying internal and external stakeholders in project boundaries

❖ Conducting stakeholder analysis (tools & techniques)

❖ Documenting BAS guiding principles, ground rules and templates

Planning the requirement development process

Stakeholders: A definition

Put simply, a project's stakeholders are:

- ❖ The people and organizations implementing the project
- ❖ The people and organizations who could be positively or negatively affected by the results of the project

Planning the requirement development process

Stakeholders: A definition

Each of these groups can and must be sub-divided in order to provide useful input to project implementation and communication strategies. This section considers the importance of stakeholders and effective stakeholder analysis in communication.

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Planning the requirement development process

Identifying internal and external stakeholders in project boundaries

- ❖ Project boundary
- ❖ Internal stakeholders
- ❖ External stakeholders

Planning the requirement development process

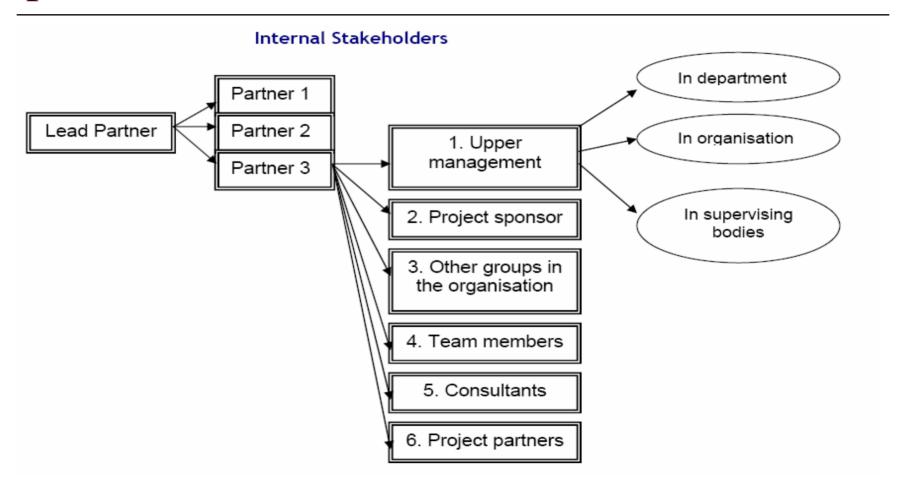A stakeholder analysis is basically a two-stage process.

Firstly the relevant categories of stakeholder need to be identified. Then specific people within each category need to be identified along with contact information so that communication can be targeted. It should, however, be noted that this is a process that continues throughout the life of the project.

Planning the requirement development process

As project work develops new categories of relevant stakeholders will appear. People will also, of course, move between and within organizations and contact information therefore needs to be regularly updated.

Notes

Planning the requirement development process

Conducting stakeholder analysis

❖ **Internal stakeholders**

- ❖ The internal group most obviously contains everyone who is working directly on the project. It is important, however, that the internal group is not limited to these people.

- ❖ Two common project problems illustrate well the need for a more thorough analysis of the internal stakeholder group. On the one hand, projects often experience administrative problems when they need to work with other parts of their own organization or when they need to cooperate with other regional or national institutions. Problems range from difficulties in securing the necessary staff and other resources, to conflicts between financial systems. All of these difficulties can delay or even derail a project.
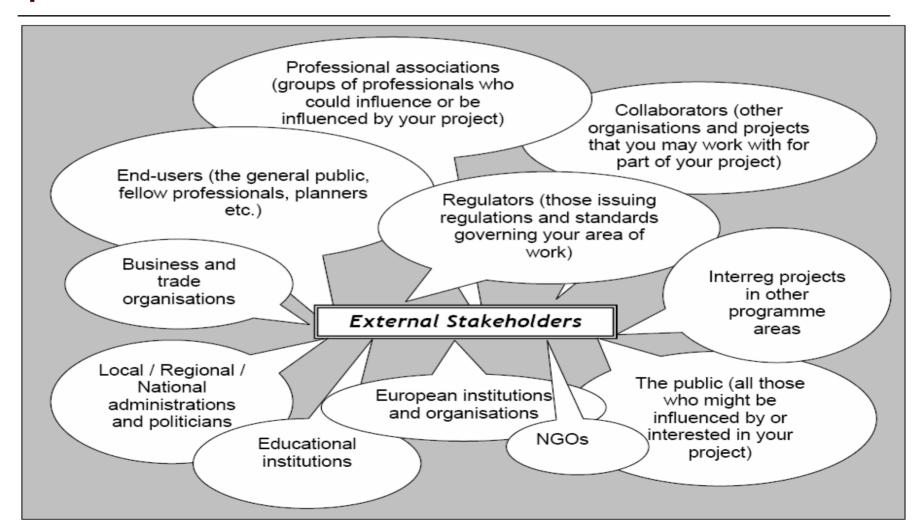
Planning the requirement development process

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Planning the requirement development process

1. Upper management: This key group can include many different sub-groups depending on the nature of the organization involved. Certainly, it must include the people that project managers in each partner organization report to, the heads of units whose work could be affected by project results and the decision-makers who will be able to approve the adoption of new measures. Some organizations may also be ultimately responsible to supervising bodies in ministries/regional administrations etc. and these groups must also be kept involved.

2. Project sponsor: Those who provide funding for the project obviously have a keen interest in its progress.

Planning the requirement development process

3. Other groups in the organization: The finance unit is the most obvious example but organizations may also need to call on legal, human resources, communication etc. skills. Ensure therefore that such groups are aware of the project, its requirements and the timescales involved.

4. Team members:

Planning the requirement development process

5. Consultants: Many projects make use of consultants and other external experts.

6. Project partners: It is essential for the effective implementation of the project that partners communicate regularly and not just at formal partnership meetings/conferences etc.

Notes

Planning the requirement development process

External stakeholders

The external stakeholders can be considered as anyone outside the implementing organizations who could be affected by the project's results.

Planning the requirement development process

Notes

Planning the requirement development process

Moving beyond stakeholder groups

It is not sufficient to identify the relevant groups. Named individuals need to be identified within each group and more than one person may be required for any organization or department. The selection of these individuals will depend on the role that they are to play in the project and the requirements in terms of knowledge, authority and level of involvement that this creates.

Analyzing the business landscape (Session Five)

Analyzing The Business Landscape

Affinity Diagrams:

- **Description**
  - The affinity diagram organizes a large number of ideas into their natural relationships. This method taps a team's creativity and intuition. It was created in the 1960s by Japanese anthropologist Jiro Kawakita.
- **When to Use**
  - When you are confronted with many facts or ideas in apparent chaos
  - When issues seem too large and complex to grasp
  - When group consensus is necessary

Analyzing The Business Landscape

Affinity Diagrams:

☐ **Typical situations are:**

- ■ After a brainstorming exercise
- ■ When analyzing verbal data, such as survey results.

☐ **Procedure**

- ■ Materials needed: sticky notes or cards, marking pens, large work surface (wall, table, or floor).
- ■ Record each idea with a marking pen on a separate sticky note or card. (During a brainstorming session, write directly onto sticky notes or cards if you suspect you will be following the brainstorm with an affinity diagram.) Randomly spread notes on a large work surface so all notes are visible to everyone. The entire team gathers around the notes and participates in the next steps.

Notes

Analyzing The Business Landscape

Affinity Diagrams:

Example

- The ZZ-400 manufacturing team used an affinity diagram to organize its list of potential performance indicators.

- Figure 1 shows the list team members brainstormed. Because the team works a shift schedule and members could not meet to do the affinity diagram together, they modified the procedure.

Analyzing The Business Landscape

Figure 1 Brainstorming for affinity diagram example

Possible Performance Measures

% purity	# of OSHA recordables
% trace metals	# of customer returns
Maintenance costs	Customer complaints
# of emergency jobs	Overtime/total hours worked
lbs. produced	$/lb. produced
Environmental accidents	Raw material utilization
Material costs	Yield
Overtime costs	Utility cost
# of pump seal failures	ppm water
Viscosity	Color
Cp_k values	Service factor
Safety	Time between turnarounds
Days since last lost-time	Hours worked/employee
% rework or reject	lbs. waste
Hours downtime	Housekeeping score
% uptime	% capacity filled

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Analyzing The Business Landscape

Notes

Analyzing The Business Landscape

Considerations

❖ The affinity diagram process lets a group move beyond its habitual thinking and preconceived categories. This technique accesses the great knowledge and understanding residing untapped in our intuition.

❖ Very important "Do nots": Do not place the notes in any order. Do not determine categories or headings in advance. Do not talk during step 2. (This is hard for some people!)

Analyzing The Business Landscape

Considerations

- ❖ Allow plenty of time. You can, for example, post the randomly-arranged notes in a public place and allow grouping to happen over several days.

- ❖ Most groups that use this technique are amazed at how powerful and valuable a tool it is. Try it once with an open mind and you'll be another convert.

Analyzing The Business Landscape (Session Five)

Feasibility Analysis

☐ The feasibility of a project can be ascertained in terms of technical factors, economic factors, or both. A feasibility study is documented with a report showing all the ramifications of the project. In project finance, the pre-financing work (sometimes referred to as due diligence) is to make sure there is no "dry rot" in the project and to identify project risks to ensure they can be mitigated and managed in addition to ascertaining "debt service" capability.

Notes

Analyzing The Business Landscape

Feasibility Analysis

- ***Technical Feasibility.*** Technical feasibility refers to the ability of the process to take advantage of the current state of the technology in pursuing further improvement. **The technical capability of the personnel as well as the capability of the available technology should be considered.** Technology transfer between geographical areas and cultures needs to be analyzed to understand productivity loss (or gain) due to differences (see Cultural Feasibility).

- ***Managerial Feasibility.*** Managerial feasibility involves the capability of the infrastructure of a process to achieve and sustain process improvement. Management support, employee involvement, and commitment are key elements required to ascertain managerial feasibility.

Analyzing The Business Landscape

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Analyzing The Business Landscape

Feasibility Analysis

☐ ***Economic Feasibility.*** This involves the feasibility of the proposed project to generate economic benefits. A **benefit-cost analysis and a breakeven analysis** are important aspects of evaluating the economic feasibility of new industrial projects. The tangible and intangible aspects of a project should be translated into economic terms to facilitate a consistent basis for evaluation.

☐ ***Financial Feasibility.*** Financial feasibility should be distinguished from economic feasibility. Financial feasibility involves the capability of the project organization to raise the appropriate funds needed to implement the proposed project. Project financing can be a major obstacle in large multi-party projects because of the level of capital required. Loan availability, credit worthiness, equity, and loan schedule are important aspects of financial feasibility analysis.

Notes

Analyzing The Business Landscape

Feasibility Analysis

- ***Cultural Feasibility.*** Cultural feasibility deals with the compatibility of the proposed project with the cultural setup of the project environment. In labor-intensive projects, planned functions must be integrated with the local cultural practices and beliefs. For example, religious beliefs may influence what an individual is willing to do or not do.

- ***Social Feasibility.*** Social feasibility addresses the influences that a proposed project may have on the social system in the project environment. The ambient social structure may be such that certain categories of workers may be in short supply or nonexistent. The effect of the project on the social status of the project participants must be assessed to ensure compatibility. It should be recognized that workers in certain industries may have certain status symbols within the society.

Analyzing The Business Landscape

Feasibility Analysis

☐ *Environmental Feasibility.* Often a killer of projects through long, drawn-out approval processes and outright active opposition by those claiming environmental concerns. This is an aspect worthy of real attention in the very early stages of a project. Concern must be shown and action must be taken to address any and all environmental concerns raised or anticipated. A perfect example was the recent attempt by Disney to build a theme park in Virginia. After a lot of funds and efforts, Disney could not overcome the local opposition to the environmental impact that the Disney project would have on the historic Manassas battleground area.

Notes

Analyzing The Business Landscape

Scope of Feasibility Analysis

❖ In general terms, the elements of a feasibility analysis for a project should cover the following:

❖ *Need Analysis.* This indicates a recognition of a need for the project. The need may affect the organization itself, another organization, the public, or the government. A preliminary study is then conducted to confirm and evaluate the need. A proposal of how the need may be satisfied is then made. Pertinent questions that should be asked include:

- ▪ Is the need significant enough to justify the proposed project?
- ▪ Will the need still exist by the time the project is completed?
- ▪ What are the alternate means of satisfying the need?
- ▪ What are the economic, social, environmental, and political impacts of the need?

Notes

Analyzing The Business Landscape

- Activity Diagram
    - In its basic form, an activity diagram is a simple and intuitive illustration of what happens in a workflow, what activities can be done in parallel, and whether there are alternative paths through the workflow.
    - Activity diagrams as defined in the Unified Modeling Language [UML1.3] are derived from various techniques to visually illustrate workflows, see for example [Johansson]. Much of the basis for the definition of the activity diagram notation is found in [Martin & Odell].

Analyzing The Business Landscape

- In the Rational Unified Process [RUP], we talk about how you can use activity diagrams to visualize the workflow of a business use case. A complete workflow description will have a basic flow, and one or several alternative flows. This workflow has a structure that we can define textually, using informal if, if-then-else, or do-until statements of various kinds. For a simple workflow with a simple structure such textual definitions may be quite sufficient, but in the case of more complex structures, activity diagrams help to clarify and make more apparent what the workflow is.

Notes

Analyzing The Business Landscape

- Historically, activity diagramming techniques have mostly been used in the business process modeling domain, but this article will also briefly discuss how you can use it in the system modeling domain.

Analyzing The Business Landscape

Basic Activity Diagram Notation

- As common for most notations, the activity diagram notation has some elements that are necessary for you to understand if you want to be "conversant" about activity diagrams.

- · *Activity states*, which represent the performance of a step within the workflow.

- · *Transitions* that show what activity state follows after another. This type of transition is sometimes referred to as a completion transition, since it differs from a transition in that it does not require an explicit trigger event, it is triggered by the completion of the activity the activity state represents.

- · *Decisions* for which a set of *guard conditions* are defined. These guard conditions control which transition of a set of alternative transitions that follows once the activity has been completed. You may also use the decision icon to show where the threads merge again. Decisions and guard conditions allow you to show *alternative threads* in the workflow of a business use case.
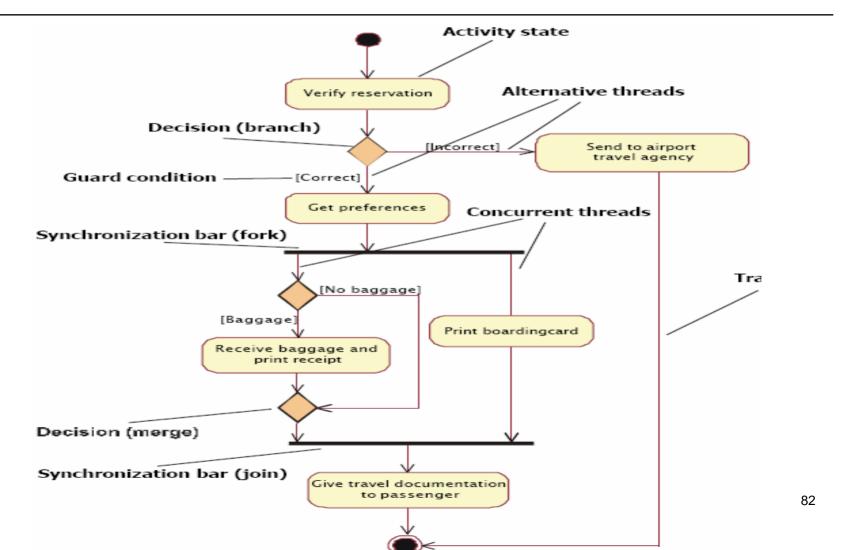
Analyzing The Business Landscape

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Analyzing The Business Landscape

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❖ *Synchronization bars*, which you can use to show parallel subflows. Synchronization bars allow you to show *concurrent threads* in the workflow of a business use case.

Notes

Analyzing The Business Landscape (Session Five)

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Q & A