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This document has been written to identify the top 10 barriers to a successful Business Project initiative based on my personal experience and opinion. I am certain that professionals and professional groups around the world who are more experienced than me may have other ideas or points to add and I respect them if that is the case, however with my 30 years as a business analysis practitioner, mentor, coach, assessor and trainer, these are the top 10 barriers I have witnessed having negative impact on the success of projects.

At this point I wish to state the definition of a 'project' as being "A temporary endeavour undertaken to create a unique product, service, or result" (PMBOK® Guide). Projects are funded to accomplish a specific strategic objective and to implement a solution that will meet business needs and may include software/technology development; Business Process Improvement or a Commercial-Off-The-Shelf solution.

A solution is something that 'meets a business need by solving problems or allows an organization to take advantage of an opportunity' (IIBA®- BABOK). The word 'solution' is used as it has a broader meaning and includes implementation of new or changes to an existing system; to procedures and to organization structures and competencies. Every project an organization initiates must have a positive return or benefit to the organization to justify the investment of the project.

Whilst the headings describe barriers, the supporting text focuses more on how to prevent the barriers from occurring.

Barrier #1 – Lack of Business Sponsor Support

Projects are initiated for very specific reasons that are traced back to the organization's strategic plan. A Business Sponsor pays for and champions the project because of an expectation that the solution will solve a business need or assist the business to take advantage of an opportunity thus underlying an assumption that the change will bring a return on the initial investment. Because projects primarily bring about change in the business, usually an Executive from the business area impacted by the project is selected as the Business Sponsor for the project. This means the individual must have the appropriate level of authority and Influence across the organization and is ultimately accountable for the success of the project.

The Business Sponsor has an active role on the project through:

- Funding the project.

- Removing all barriers of risk.

- Involvement in the prioritization of projects at a strategic level and the ongoing review of the Business Case for the project to ensure the project is on track and still valid.

- Championing the project across the organization and being the champion communicator to defend the need for the project and the solution.

- Actively communicating the purpose of the project to the selected team members at project initiation and maintaining motivation of team members throughout the project lifecycle.

- Participation in working sessions to prioritize project deliverables.

- Being the final decision-maker in the event of consensus not being reached between stakeholders.

- Participation in management activities to ensure the on-going smooth efficiency and healthy dynamics of the project team members.

- Participation on the Project Portfolio review committee to report on and/or defend the ongoing need for the project.

Barrier #2 – Lack of a Business Case to justify the initiative

Project work costs money even if a project involves only internal employees and organizations decide to fund projects because they anticipate a return on the investment (ROI). Most business analysis work begins when organizational changes are needed to implement the business strategy and usually senior business analysis professionals are

involved in the development of the Business Case to justify the solution. This means the business case provides executive management with the information needed to make a go/no-go decision and should include:

- The problem or the opportunity the project will solve

- How investments trace back to the business strategy and business requirements

- The tasks that need to be performed to support the As-Is and To-Be views including measurements, metrics and views of the current enterprise architecture and possible changes needed to the enterprise architecture to align information systems with future business needs

- Results from a feasibility study. A feasibility study is an *"Evaluation of proposed alternatives to determine if they are technically possible within the constraints of the organization and whether they will deliver the desired benefits to the organization."* —BABOK®

- Recommendation of whether the TO-BE solution architecture can be developed within the organization's tolerances of risk, budget, and time?

- In-depth financial analysis and modeling, including ROI calculations to determine how quickly a projected return will be realized

- Whether the organization has the capability or expertise necessary to implement a successful result or whether the organization wishes to share the risk with another organization? Who can do it faster, cheaper, or better—the organization's employees or a contractor?

- High level risk assessment and the *"magnitude of loss or gain to be realized should a specific risk or opportunity event occur"* (Ward, p. 202)

- Recommendation of the most appropriate solution option to select

Every project type should be supported by a Business Case however the complexity and effort needed to develop the business case must be based on the type, size and risk of the project. The Business Case is a 'living' document and should be reviewed with each major project milestone.

Barrier # 3 – Lack of effective Project Portfolio Management

Portfolio management is: *The centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling programs, projects and other related work, to achieve specific strategic business objectives."* PMBOK® Guide.

In a number of organizations Project Portfolio Management is still a function that typically resides in the domain of IT and focuses mainly

on managing those projects that have an IT system development solution which the IT area is responsible for. This leaves a void in the management and co-ordination of other project types that may not necessarily have a new automated system requirement as a solution for example, business process improvement projects, organization structure improvement projects, etc. As a result of this gap in managing projects, it is common to see project team members allocated to multiple projects with no clear guidance of the project that has the highest priority.

What is the alternative? Modern thinking suggests that Project Portfolio Management is a function of Business Strategy and therefore to be managed by the Business. Repositioning Project Portfolio Management under the management control of business opens up the management and prioritisation of projects to include all types of projects that must be implemented to meet strategic objectives. Therefore it is possible fewer projects will be initiated but with each project having a wider impact across business functional areas, maximizing return on investment and leading to benefits that can be realized by multiple business areas.

Also, review of the Project Portfolio on a regular basis by the Strategic Management Team, helps organizations to ensure:

- Projects are prioritised and executed to meet the business strategy and the business case for each project is regularly reviewed to ensure the project is still valid.

- Project resources are effectively allocated to the right project as 'dedicated' team members who will ensure successful implementation of each project.

- Duplicate and redundant projects are stopped and duplication of effort is minimized or avoided.

- Stakeholder involvement is managed effectively.

- Legacy systems and other components of the IT architecture continue to be investigated to ensure they meet existing business obligations and/or have the capability to support new business opportunities.

- Projects are organized, monitored, and evaluated on a regular basis by the right people for the right reasons.

The Portfolio management review board must have the authority to provide funding for projects and to stop projects/programs that do not meet the investment criteria.

Barrier #4 - Lack of Stakeholder Buy-In and Involvement

Stakeholders are people or groups of people who are directly or indirectly impacted by a project and are core to the success of projects. Unfortunately in the absence of effective Project Portfolio Management, the demand on Stakeholders' time and knowledge to work on multiple projects more often than not leads to 'project fatigue' as stakeholders struggle to balance their time between project commitments and daily 'business as usual' activities.
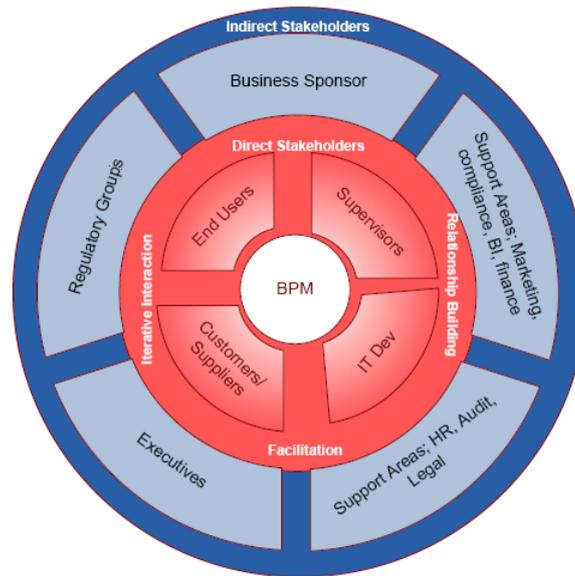

Figure 1: Model depicting direct and indirect Stakeholders

This situation leads to increased risk as people:

- Delegate project tasks to unskilled resources that are unable to articulate goals / future state without guidance – neither do they have the correct level of authority to make decisions.

- Choose to focus on and buy-in to projects they personally 'relate' to because of conflicting priorities.

- Reject inclusion in business analysis work activities because they are unwilling or unable to invest appropriate time to identify requirements.

- Lack commitment to project discipline and deadlines that must be agreed upon and committed to for the project to progress successfully thus they display a "Hand-off to IT" paradigm.

- Decline attendance at business analysis or project meetings as they lack understanding of the importance and responsibility of their role on the project. They also display a lack of appreciation for the BA role thus enforcing deadlines without collaboration.

Stakeholders, whose knowledge and input is important to a project, should demonstrate their ability, attitude and commitment to being involved in the project. Stakeholder Analysis which takes place during the Business Analysis Planning stage, is a key activity used to identify the right stakeholders to be included in the project. When identified, the Business Sponsor has the responsibility to negotiate with the stakeholder's line management for the individual's time as estimated in the Requirements Work Plan. Consideration must be given to the geographical locations of stakeholders and the difficulties experienced by the project team to manage and communicate with individuals or groups who are in remote locations. It is the Business Analysis Professional's responsibility to establish a professional and positive atmosphere of respect and openness whilst working with stakeholders so that quality requirements are defined. The Business Analysis professional must be highly skilled in different facilitation techniques to work effectively with local and remote stakeholders equally.

Barrier #5 – Poor Project Team structure, responsibilities and management

Every project is expected to be implemented successfully and should consist of a dedicated group of skilled specialists who work together as a team with a common goal to implement a quality solution.

Unfortunately most projects fail to put together a dedicated team and in cases where there is a team, more often than not roles and responsibilities have not been clearly defined and agreed upon and in some cases, team members do not have the correct skills and experience to perform project work.
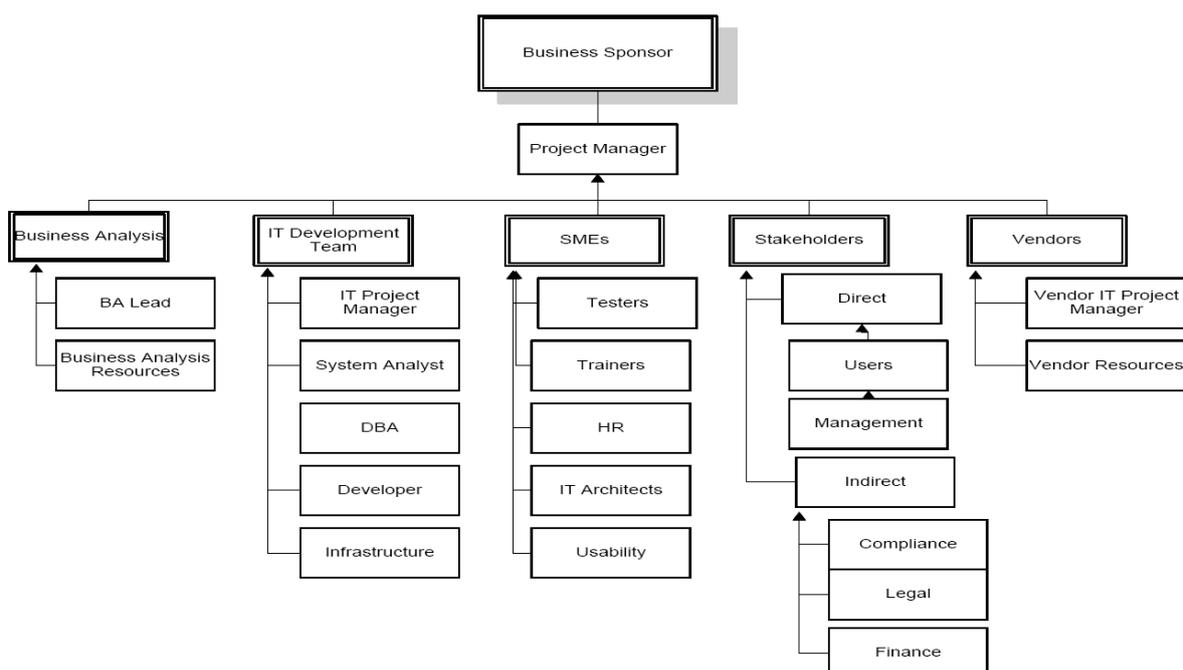
Figure 2: Example of a typical project team structure

The above team structure is an example of the roles typically needed for the successful implementation of a solution. However, allocating the right people to each role is not usually given the attention it deserves to ensure the project team have complementary skills, expertise and personalities to maintain the correct dynamics and professionalism needed to deliver a project successfully.

For medium to large projects a dedicated team is necessary and should be co-located to improve collaboration and communication between team members. Another fundamental point that must be considered is that a project team consists of specialist professionals, there is no hierarchy given to team members based on line titles. Line titles carry no importance to a project team, everyone is equal and team work is essential. Performance assessment is another task undertaken within the team. Too often 360° performance assessments are not performed within the project team structure but are undertaken as a line management function with line managers having no insight into individual performance within the project team. Every role has responsibilities and where more than one resource is allocated to a role, clear job descriptions must define what is expected of each individual. Typical roles and responsibilities are:

Business Sponsor	• Champions the project • Provides funding • Must have the appropriate level of authority and level of influence (if the sponsor does not have cross-functional authority then a more senior sponsor must be found. • Must be from the appropriate/relevant business area • Is final decision-maker (where consensus is not reached between stakeholders) • Is final approver of Requirement • Manages cross-functional conflict • It is their project. They are the people to defend the solution once it is implemented
Project Manager	• Defines the project scope – refines scope with input from business analysis professionals. • Manages the project according to triple constraints: time, cost, and scope • Selects, builds, and manages project team and dependencies • Develops and obtains approval of the Project Plan – with input from team sub-stream leads

	• Develops the project budget and schedule (based on estimations from team sub-stream leads)
	• Manages all project changes
	• Monitors and reports project progress and status
	• Concerned with overall project Success
	• Removes issues/barriers
	• Identifies, assesses, and evaluates overall project/organizational risk
	• Manages and controls project risks
	• Demonstrates competencies as defined in *A Guide to the Project Management Body of Knowledge* (PMBOK® Guide)
Business Analyst	• Plans for Requirements initiative in a Requirements Work Plan and requirements WBS
	• Identifies/assesses stakeholders
	• Elicits, analyses, documents and validates requirements in line with business strategy
	• Determine solution scope with stakeholders and works with PM to refine project scope
	• Assesses and evaluates solution options
	• Manages, communicates requirements
	• Communicates BA RWP estimates to PM for inclusion in the Project Plan
	• The BA analyzes and documents the AS-IS (the current state) and the TO-BE (the future state) of the business and its processes, business rules, data, and systems and other elements necessary for success
	• Simulates new process using process models, including workflow models and process maps
	• Verifies solution development back to Requirements. Sets up requirements for traceability.
	• Assists with the planning of the solution implementation
	• Documents and obtains approval for metrics developed for control and monitoring of the solution
	• Concerned with the overall success of the solution
	• Identifies, assesses and evaluates risk associated with requirements
	• Demonstrates competencies defined by the *Business Analysis Body of Knowledge* (BABOK®)

SME	• Is an expert on the processes and/or the outputs of the processes impacted by the project • Understands the whole process from beginning to end and how it supports the organization's mission/strategy • Often manages or conducts tasks within the process (that is, he or she is a user of the process) • Usually is the best source for providing and validating information on how the process currently operates and for new requirements.

Stakeholders	*Direct stakeholders*
	
	    – An individual or group directly affected by the project
	
	    – Someone whose support is necessary for the project to be successful
	
	    – An end user
	
	Indirect stakeholders
	
	    – Someone once removed from the process itself that may use output or data from the process (such as a customer support system). Heads of business areas, such as sales, marketing, accounting, HR and legal.
	
	Note: *To avoid resistance to the system upon release, users must have an opportunity to give input into new solution vision and design decisions.*

Technical Representatives	• Technical representatives ensure the solution vision includes features that are technically feasible • Are responsible to develop the physical requirements specifications and to develop / customize the new solution • Participate in collaborated system design sessions with business stakeholders facilitated by business analysts. • Includes systems, data, application, security, and infrastructure architects. • Developers or programmers verify that the solution meets specifications.
Systems Analysts	• Systems analysts turn business requirements into specifications for the solution and often perform test planning. • Participate in reviews or inspections to verify technical specifications

Test Personnel	• Participate in facilitated collaboration review of requirements to ensure requirements are stated in testable terms, have included measurements and highlight defects at an early stage.
	• A master test plan is created to ensure all the activities for testing a solution have been considered and planned for.
	• User and acceptance testing is undertaken to ensure the solution meet the business objectives and a quality solution is delivered. It is usually performed after the developers and technical test team have completed their testing.
	• End users are the source for user requirements and will use the solution to perform their business tasks. They are the preferred resources to validate the solution.

Table 1: Typical Project Roles and Responsibility

Barrier #6 - Requirements are documented in voluminous and ambiguous text.

Every organization and indeed every business unit within an organization speaks its own language and uses its own terminology to describe the work they do. This 'freedom of speech' increases the complexity to understand the business and to identify commonalities. This occurs primarily because people in different business areas only see the work they perform and they understand it from their business area's perspective, few have an end-to-end view of the process. It is incumbent on the business analysis professionals working with different stakeholders to structure information received in such a way that it represents a single view of business requirements. In other words, models are used to provide visualization of business reality. Use formal and rigorous modeling techniques for requirements analysis prior to solution development and understand that you will never get a complete requirement in one interaction with stakeholders; it is an iterative process with more information being uncovered in each iteration and validation interaction with stakeholders.

A model is a simplification of reality that includes text, diagrams, measurements, data and other elements and should be used throughout planning, analysis and development. Good requirements must consider and should communicate 4 dimensions; behaviour (using workflow/ process models); structure (data modeling); dynamics (Events, triggers) and Business Rules that constrain/control the business. With this in mind it is therefore essential that data modeling should be a parallel activity in the analysis and requirements-gathering phase.

When modeling, the business analyst will need to work with the

stakeholder team and must ensure information received from stakeholders is analysed, structured, organized, documented and validated accurately. Models are not hierarchical; they can be used at any level of analysis. Typical models used are:

Organization	Organization Decomposition model
	Role Model
	Business interaction model
	Business location model
	Product specialisation catalogue
	Service specialisation catalogue
	Channel specialisation catalogue
	Conceptual Data model
	IT architecture models (System interaction diagrams; network diagrams, etc)
Behaviour	Workflow models
	Process maps
	Activity diagrams
	Data Flow diagrams
	Use Case diagrams
	State Machine diagrams
	Sequence diagrams
Structure	Entity Relationship diagrams
	Class Models
	Object models
	Data definition lists
Dynamics	Events
	Triggers
Control	Business Rules
	Validation Rules

Table 2: Examples of different Business Models and Controls

Business Analysis professionals must master the art of modeling and understand what model to use and when to use it. Good requirements use a combination of different models and other elements (matrices, prototypes, user stories, etc) that are capable of describing the requirement from a holistic perspective. This implies the notion of a single, voluminous, formal requirements document as a deliverable is unwieldy and open to errors and ambiguity. Rather requirements should be organized into separate and complete sets (packages) that contain all of the elements needed to fulfil the requirement. Formal delivery of requirement packs improves communication, resource allocation and management of the requirements development during the SDLC.

Barrier #7 – Solution Development does not align with Business Needs

Do I hear you say "What do you mean"? Let me explain. In most cases a business project is initiated by a Business Executive due to an 'idea' or a perceived business need (problem or opportunity). The business analysis professional/s allocated to the project must work with identified stakeholders to frame the business problem, ascertain the root cause, and provide a baseline by investigating the following:

- **What is the business problem/opportunity to be investigated** – apply a process-based approach to understand how the business currently operates (As-Is).

- **Who is involved** – identify direct and indirect stakeholders

- **Where does the problem occur** – Models represent a useful and essential visual tool for better understanding the business areas of an organization and for determining where the critical business problems or opportunities exist within the organization.

- **How often does it occur** – collect measurements. Metrics are essential to identify and improve performance.

- **Why does the problem occur** – determine current performance through metrics.

- **Involve users** – they are the people who actually do the work.

- Justify the need for changes. Build the Business Case and include all of the elements needed to justify the need for change on financial grounds.

To fix a problem effectively, we need to know why it is happening and the effect it is having on the business, customers and suppliers. Too often solutions are implemented to satisfy stated needs and do not satisfactorily address root causes resulting in user resistance, failed applications, costly rework or a possible increase of expensive shelf-ware. Business analysis is crucial for identifying the business needs of

end users and other stakeholders to determine appropriate solutions and as such is a unique discipline requiring a specific set of skills and aptitudes. There are a number of different techniques and tools that can be used to determine root causes and business analysis professionals must be proficient using them. Some examples are:

- Process modeling

- Questioning techniques – 5 Whys?

- Fishbone diagrams

- Mind Maps

- Decomposition.

Business Analysis involves the investigation of a business problem or opportunity; the analysis and documentation of the requirements that a solution must satisfy and by applying business analysis best practices *(as documented by the IIBA® in the BABOK®)* organizations can minimize threats and maximize opportunities by ensuring the right solution is implemented to solve the right business problems.

Barrier #8 – New software development approaches are not always understood and create confusion

There are constantly emerging business and IT challenges in software development; Six Sigma; Lean; CMMI; BPM; Plan-Do-Check-Act; Agile; PM; Rup; Iterative; Waterfall; BPMN; UML; TOGAF; Zachman; FEAF; SOA; IEEE; OO, etc.

To the average organization this plethora of trends, approaches, methodologies, notations, etc. cause great confusion and are not always implemented correctly. As a matter of fact, I have often seen Six Sigma, Lean, CMMI and BPM implemented in a single enterprise but adopted by different business units. This not only creates employee confusion but can create conflict in the way information is modeled by different teams and stored.

For example, a project life cycle is a framework for describing the phases involved in developing and implementing a project and the SDLC approach (Iterative or Waterfall) typically aligns with the phases of the project life cycle, but the activities and tasks within the phases, and the sequence of the phases, may differ. Agile is a Project Management concept and not a methodology nor a SDLC approach.

Implementing a Centre of Excellence (CoE) in an organization with highly skilled and experienced people who provide specialized technical or management expertise, guidance and oversight will help project teams to meet internal business needs or the needs of the customer. The CoE will

also lead to enhanced reuse of processes with an increased likelihood of achieving the business strategy by:

- Improved and more efficient work processes, systems and products producing greater cost savings, more accurate schedule and an increase in customer satisfaction

- More effective communication and collaboration among stakeholders throughout the organization

- Clearer understanding of stakeholder needs

- Improved productivity and efficiency in requirements analysis

- Improved flexibility to respond to project complexity

- Improved ability to accommodate requirements changes

- Better decision making at all levels within the organization

- Increased stakeholder involvement and satisfaction

- Better usage of tools and standards

- Improved management of the project portfolio

- Improved development of requirements in requests for information (RFIs), requests for quotations (RFQs), and other documents required for purchasing.

Barrier #9 – Separation of business analysis responsibilities and different skill levels

"Business Analysis is the set of tasks and techniques used to work as a liaison among stakeholders in order to understand the structure, policies and operations of an organization and recommend solutions that enable the organization to achieve its goals." (A Guide to the Business Analysis Body of Knowledge® (BABOK)). Business Analysis is distinct from other business and project roles such as project management, financial analysis, accounting, market research, and quality assurance and is crucial for identifying the business needs of end users and other stakeholders to determine appropriate solutions. The aim of business analysis is to analyze and document the performance of the business processes so the processes can be made more effective and efficient. An important component of business analysis is requirements management—that is, the planning, elicitation, analysis, and documentation of requirements to achieve the organization's business strategy.
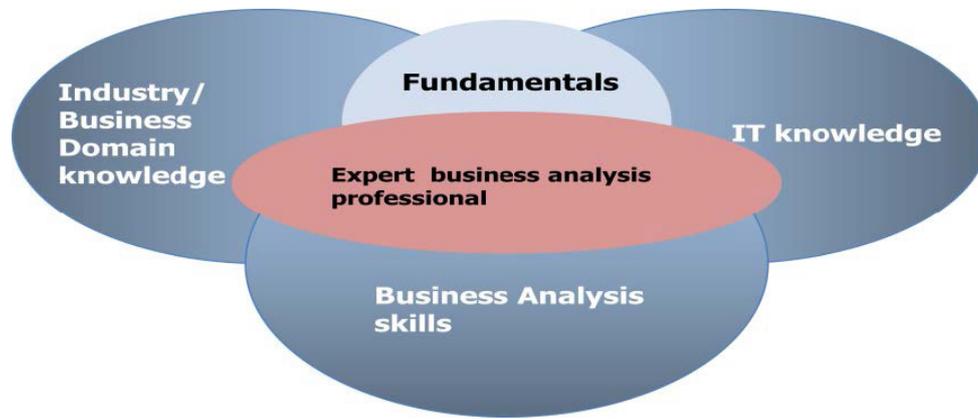
Figure 3 Different Business Analysis responsibilities and skill levels.

- Business Analysis is a profession and requires mature practitioners

- Business Analysis Professionals must have organization and industry knowledge to interact effectively with stakeholders by using good relationship building and questioning techniques. More often than not, it is only by using personal knowledge of the organization that an Analyst can uncover unstated requirements. Organization knowledge involves understanding the organization structure, products, services, core functions, information, systems and processes and Industry knowledge involves an understanding of competitor performance.

- IT knowledge implies having the ability for system thinking and structuring information and requirements to support system development. It also includes skills such as project management, process management, data management, modeling, methodologies, frameworks, etc.

- The Fundamentals defines interpersonal skills and techniques such as the ability to manage conflict, negotiation skills, people management skills, leadership, time management, influential skills, selling skills, presentation and communication skills.

- Business analysis skills are documented in the 7 Knowledge Areas of the BABOK® being;

  - Requirements Planning and Monitoring

  - Enterprise Analysis (business analysis at a strategic level and works in conjunction with business architecture, programme and portfolio management).

  - **Elicitation** – uses specific skills and techniques to extract user's requirements to solve business problems

  - **Requirements analysis and Documentation** – understanding the different levels and types of requirements and decomposing them to the level of detail necessary to develop a solution.

  - **Solution Assessment and validation** – ensuring the right solution is to be implemented and that the solution is being

developed correctly according to requirements.

- – Requirements Management and Communication

- – **Underlying competencies** – the personal attitude, competencies, aptitude and capability an individual has to successfully practice business analysis

- There are many techniques available for Business Analysts to use which includes graphical, textual and matrix style modeling and documentation. A good Business Analyst is capable of working with more than one technique (and presenting different dimensions) to express requirements that are traceable, validated and justifiable.

In most organization business analysis is undertaken by people with different organization titles such as:

- Business Architect

- Solution Architect

- Application Architect

- Data Architect

- Business Analyst

- Process Analyst

- Systems Analyst

- Data Analyst

- Requirements Analyst

- Product Manager

- Process Engineer

- Etc.

In all cases, the individuals in these roles should be trained in business analysis skills and techniques no matter what focus their job description requires of them that is: analyzing the enterprise at strategic level; analyzing requirements at project level; analyzing data; analyzing a system or analyzing the organization's technology and infrastructure. These groups of people should work together as a team sharing and reusing information and models with the common goal of making the organization more efficient. Unfortunately in most organizations, people with the above titles work in isolation and in silos and do not collaborate effectively for the common good of the organization.

Barrier #10 – Disparate Tools do not always support business analysis

Most software development methodologies and tools have been created by software developers to help in the efficient development of application systems. Very few of them include or even acknowledge the primary work of business analysis. A number of them mention business models and business modeling as an activity that happens before project initiation and they also talk of requirements management. To most people the phrases seem logical but they have important implications; the first assumption is that when a project is initiated, the business model has already been developed, the solution approach to best support the business problem has been selected and requirements have been documented and approved. Thus the project focuses on software design and development following the approved requirements and business needs. Of course it makes sense. However many organizations do not understand the underlying assumptions used to design the tools neither do they match the underlying assumptions to project management methods or software development methods. Business Analysis professionals are usually assigned to the project team to elicit and document requirements in the context of methodologies and assumptions that have no time allocated for analysis work. For example, RUP uses the word 'analyze' as one of its phrases, but this is software analysis – not business analysis. Business Analysis professionals are also expected to use tools that are inflexible, complex and highly structured (as they should be during software design and development) but they do not support the flexible, iterative work a business analysis professional has to perform to reach the point when requirements are structured (correctly and completely), validated and approved by business stakeholders and are only then made available to the software development team for physical software design and construction.

The lack of tools to support business analysis results in information being kept all over the place; no re-use or sharing of information between business analysis professionals thus resulting in duplication, inconsistency, inaccuracy, incompleteness and difficulty experienced in tracing and aligning requirements and deliverables to strategic business goals and throughout the SDLC.

Conclusion

It is an organization's responsibility to set up projects and people for success, this means:

- Senior management support and sponsorship have been obtained and the executive management team is visible and active on the project

- Adequate funding has been made available

- Project success has been validated in a credible business case (that is, forecasted business benefits resulting from recommended process improvement)

- There is consensus that the project and processes are clearly important to the achievement of the organization's business goals and objectives

- The proposed project team is experienced and highly skilled and roles and responsibilities are agreed

- The project team has access to experts who can offer on going guidance and coaching

- The employees work effectively by providing a team-based, co-operative environment, co-located for efficient communication and collaboration

- The organization is ready for change.

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