

Potential Scope of the Business Analyst

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Executive Summary

Business analysis requires best practice knowledge of processes and technologies which can offer the business operational economies, efficiencies and advantages. This report shall investigate the potential scope and impact of the business analyst in organisation.

A combination of academic and practitioner level capability along with sufficient tacit and proven methodology knowledge is required for a business analyst to provide the desired impact to organisation. The scope of the Business Analyst essentially can be split into four focus areas over three business domains and a wide variety of analysis tools for manipulation. It is noted the while there are a multitude of proprietary and non-proprietary tools widely available in the market and particular versions materialising as most useful and with superior longevity than others.

Together with these attributes, the degree of impact of business analysis to the organisation could be said that it is directly proportional its size; denoting that the role of the business analyst can vary greatly from one wearing many hats in small organisations, to one with a very specific and narrow business analysis responsibility only.

Again the size of the organisation somewhat dictates the level of operational, strategic and project focus. It is not inconceivable that small IT organisations to not concentrate activities on anything but IT projects. Due to this cross-pollination of skills into project management, the role of the business analysis is broadly customised, refined and attuned to the organisation where the analyst is employed.

Engagement approach in analysing systems, processes, methodologies and modelling techniques contribute to the value of the consulting firm and provide much sort-after visibility in a sharply competitive market.

However generic qualifications of the business analyst are evident in locking down various metrics from requirements to benefits realisation management. The scope of the Business Analyst is core to definition requirements and economic methods of moving forward.

Introduction

The potential scope and impact that effective business analysis exerts on an organisation is not easily quantifiable but invaluable. In the business analysis of information technology (IT), the analyst requires a knowledge of processes and technologies which can offer the business operational economies, efficiencies and advantages, and how best to apply these technologies against the current economic environment.

The scope of the Business Analyst varies from organisation to organisation. Essentially the business analyst is to define and analyse potential gaps or areas for improvement in process and / or methodology. Actual scope depends on a myriad of changing and evolving factors including, market evolution, transformation of global economies and the industry and type of business analysis organisation outputs. In information technology, Business Analysts in organisation may focus on one component application (projects), be across whole of business (operations) or be responsible for defining an innovative way forward for the company in the market (strategic).

To define business analysis and how did can benefit organisation we must break the role down by defining business analyst key competencies and attributes, requirements of the organisation, an IT projects perspective and the tools and techniques the analyst must know giving the potential benefit to the organisation.

Business Analysis Core Competencies

Business Analysis may stretch across many areas of organisation with focus on the contexts of strategic intension, business operational refinements and various project and program endeavours. The Wikimedia Foundation (2006) defines a Business Analyst as being *“responsible for identifying the business needs of their clients and stakeholders to help determine solutions to business problems”*. To perform this essential task and to properly define the potential scope, certain academic, technical and tool competencies are required.

Academic requirements

Generally Business Analysts have academic undergraduate and postgraduate degrees in Business, have strong analytical skills, an eye for detail and have a robust working knowledge and experience in the company and industry they are employed. Specialised qualifications in particular areas of business; arm analysts with skills that operational staff may not focus on providing additional value to the organisation. Depending upon the organisation, different academic processes and methodologies are employed to process refinement. These include industry proven tools such as Six Sigma, Use Case, BPR and various maturity models.

Technical requirements

The analyst operates outside the business ‘bubble’ and takes on a view looking inward at an issue without being subjected to organisation politics. In other cases it may be beneficial for the analyst to look at an issue from the inside out, but still provide an objective viewpoint to achieving a solution. Other character traits include:

- Identifying the need for change
- Defining change and being an agent or advocate
- Ability to balance innovation, communication and capability with organisational need
- Being agile enough to look outside the obvious problems, laterally at other forces
- Having good communication and influencing skills
- A strong knowledge in the practical application of analysis tools and techniques
- Technical competency in written and oral presentations

Tools and Techniques

There are many tools and techniques available to the business analyst in defining organisational efficiencies. Knowledge on how best to apply these tools is critical in identifying value the market. It is important to understand the academic nature of some tools and that their application does not suit all situations and organisations.

The skill of the business analyst is evident by showing the ability to identify a selection of tools that can offer the most value to a certain situation. Below (Fig1) is a selection of only a few published tools and techniques that a business analyst had at their disposal. This is a non-exhaustive list and does not include the numerous proprietary tools used internally by certain organisations and consultancies.

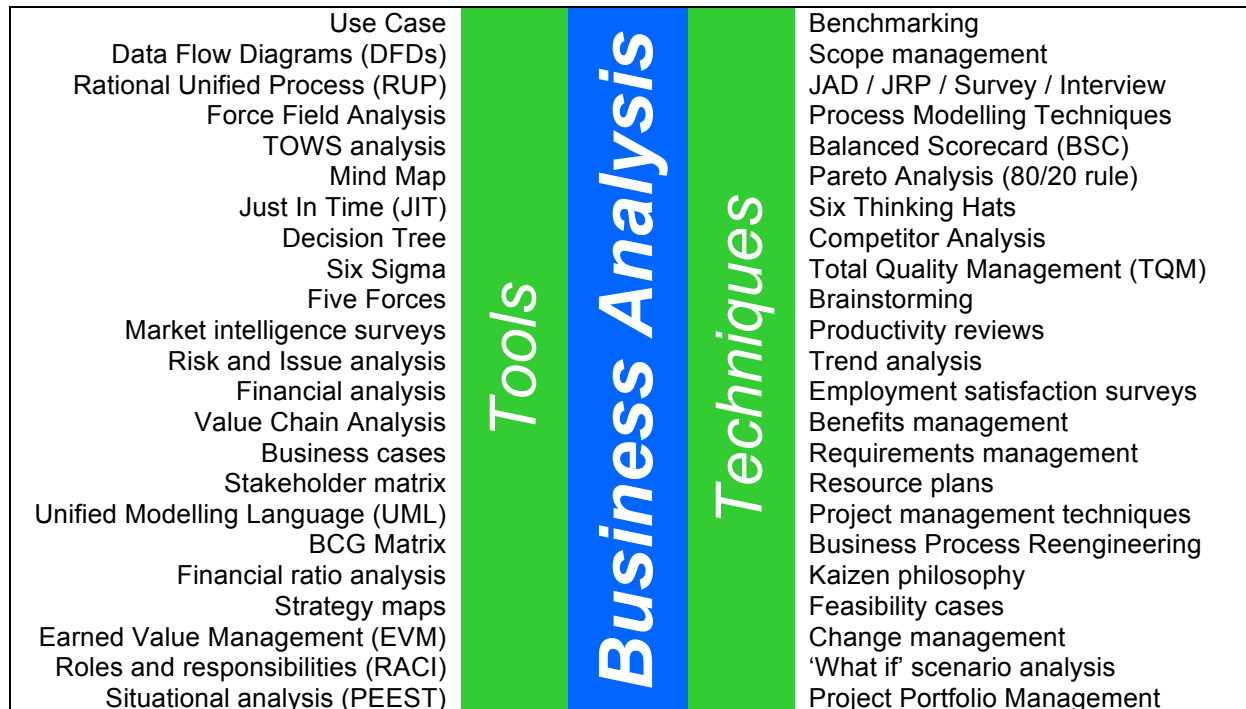


Fig1: Business Analyst Tools and Techniques

For a more comprehensive list of management tools, methodologies and techniques, see www.valuebasedmanagement.net.

Common Areas of Focus

Focus areas can be widely grouped into four groups of analysis. These are;

Commercial Analysis concentrates on detailed and investigative data in developing business documentation incorporating areas such as modelling, current and potential case impact assessments, risk and issue maintenance, feasibility studies and benefits management realisation.

Requirements Analysis focus is on identifying, assessing and documenting stakeholder requirements. This area is the largest of the four and covers areas such as systems analysis and design, defining functional and technical requirements, modelling, stakeholder workshops (JAD and JRP) and interview forums and Rational Unified Process (RUP) methodology requirements management.

Technical Analysis essentially is about the delivering of technical documentation. This includes defining and documenting technical specifications, high level system testing, Use

Case formulation and system modelling. Typical deliverables and expectation include documentation such as business process and quality procedures, user reference guides and manuals, training Materials, contract and bid formulation and presentations.

The *Process Analysis* area is the most structured in using the waterfall methodology of define, measure, analyse, improve and control processes, not unlike the Six Sigma process of DMAIC (app A). Process includes Business Process Re-engineering (BPR), process efficiency assessment, mapping, design and improvement, Balanced Scorecard, Benchmarking, integration testing, User Acceptance Testing (UAT) coordination and requirements management testing.

Business Analysis in Projects

It should be noted that the business analyst does not have to be all things to all people. This role can vary greatly from one organisation to another. The business analyst does not need the underlying skills of a project manager or a detail technician. Scope varies from one project to the next and depending highly on the inherent skills of the business analyst, their past experience and how they have come into the role. Generally business analysts approach projects with simply knowledge of the system and of the project administration of the endeavour. They offer a business perspective; incorporate rational thinking and the collaborative support of the wider organisation through projects. Typically within a project team there will be different and dedicated individuals including a;

- Project sponsor or executive to oversee the project and to provide financial, resource and organisational support
- Project manager to administrate the planning phases, allocate resources, manage risk and issue mitigation and monitor milestones, tasks, durations and project critical path
- Business analyst to provide business cases, pre-project requirements, benefits outcome and management, business process to project integration and strategic alignment
- Technicians to perform the tasks as required by the project schedule.

All organisations have goals and purpose with integral roles for business analysts in achieving these milestones. Within organisation, business analysis scope can be dividing into three main domains being Operational, Strategic and Project. Within these domains resides a combination of the four aforementioned focus areas.

These three areas of business make up part of the organisation’s enterprise architecture that business analysts are involved with (Fig2). Strong use of technical analysis tools combined with business knowledge can facilitate a rapid return on investment to the organisation.

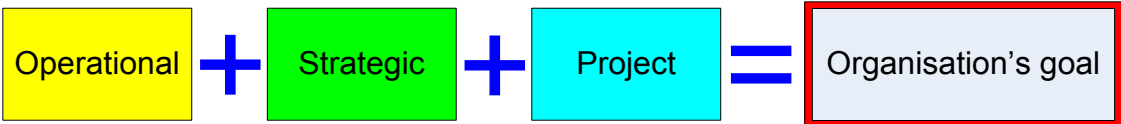


Fig2: Business Analyst Contexts

Operational Business Analysis

Company normal operations or business as usual analysis can offer internal advantages and efficiencies among business units. Business analysts drive change and improvement in process, measurement and quality. In the context of information technology, this could mean new software and hardware recommendations to improve efficiency, definition and documentation of workflow process areas, managing and implementing methodologies such as ITIL (Information Technology Infrastructure Library) and ISO (Australian Quality Standard) and serving internal customers with a streamlined value chain and improved organisational metrics.

The operational business analyst may not exist as a stand alone role in many organisations. Due to economies of scope (MIS Quarterly 1999), only large corporation's employee dedicated operational business analysts. Small software houses, for example concentrate only on their client base, their product and its refinement in the industry. These economies are best noticed in the smaller outfits as resources are shared across multiple domains, products and services, bringing obvious cost savings and knowledge sharing across the company. This may also allow the business analyst to wear many hats including project manager and technician; providing them with extensive knowledge and governance across IT projects.

Key deliverables of the business analyst include items such as;

- Process documentation, improvement recommendations analysis and proposals
- Process maps and Document Flow Diagrams
- Work instructions
- Process management plans and charts
- Change management plans
- Quality plans

Strategic Business Analysis

Strategic planning incorporates affirmation and ongoing sponsorship from senior management on a path forward to reaching an intended goal. It can begin in the form of a corporate mission statement or set of guiding principles. In developing strategy, various tools and techniques are employed by skilled business analysts in first defining an achievable goal then assessing the organisations capability and benefits in reaching that goal.

Strategic analysis in information technology involves researching the market and competition, benchmarking other IT companies of similar size and structure through publications, web and the media and leveraging off organisation core competencies in developing creative solutions and potential advancements. However strategic analysis does not have to be external to the organisation. The strategic business analyst may certainly have cross-responsibilities to the operational business. The strong knowledge required of the business in an operation sense can be leveraged to promote and investigate internal strategies as sub-projects to prepare for external market advancements.

In the information technology department, IT strategy is about aligning one IT project or intent with another, building toward the wider organisational goal. IT Strategy can not exist alone in a vacuum but is an arm to assist the corporation in achieving its goal. IT Strategy and business strategy must be integrated (Henderson and Venkatraman 1999).

Key deliverables of the business analyst include items such as;

- Commercial strategy
- Business plans and cases
- Program and Project briefs
- Benefits realisation plan
- Feasibility Studies

Project Business Analysis

Once strategic intensions have been made clear, projects must be assigned to enable the organisation to attain goals determined through strategy. Strategies and goals without a project or road map simply do not happen. The value to the organisation the business analyst brings is in developing feasibility for the right projects to achieve success. As project and strategic business analysts walk hand in hand, it is critical that the project decided upon facilitate long term sustainable efficiencies for the organisation. Michael E. Porter (1996) states that to maintain sustainability, certain trade-offs are essential to create the need for choice and purposefully limit what the company offers. This meaning, action dictates doing more of one thing and less of another. In defining this trade-off, the business analyst (and project manager if required) must perform rigorous health and benefits checks on current and pending projects.

With the use of specific IT project tools like EVM (Earned Value Management) and by analysing the overall benefit to the organisation through techniques like PPM (Project Portfolio Management), projects can be prioritised and categorised into an order of importance. This portfolio or program level view of all IT project allows the business analyst to pool resources and communicate a whole of organisation critical analysis of project expenditure.

The value of this crucial business analysis to the organisation is financially quantifiable through a combination of the cancellation, resourcing and identified healing needs of all projects across the organisation.

Key deliverables of the business analyst include items such as;

- Feasibility Studies
- Business cases
- Requirements specifications
- Solution specifications
- Test plans and reports
- Business readiness reports
- Change Management Plans

Business Requirements

In the early stages of any project, requirement must be gathered to ensure the project is designed as per organisational need. A large part of the business analyst scope in IT projects is the formulation and approval of business cases. This is a mandatory requirement in securing stakeholder agreement, funding and project resources. Definition of high-level (executive and business expectations), functional (generally encompass tangible expectations that are directly mapped to the expected outcome) and non-functional (qualities or attributes of the resulting system, not specific to solution functions) requirements exist at varying levels of complexity depending upon the application.

With the application and knowledge of information technology, the software development Life Cycle (SDLC) and various tools, methodologies and techniques, the business analyst can provide much needed groundwork in assessing business need, capability and readiness of the intended direction.

During the project requirement phase, the business analyst typically follows a standard waterfall process of identifying the issue, stakeholder engagement, boundary and constraint definition, data gathering and analysis. This usually is documented in the form of a detailed business case that includes intricate detail on scope, current business position, project objectives, business requirements and expectations, risks and issues, impact assessment, interim schedule and post-project and future benefits.

Without pre-project stringent business analysis, requirements can change, scope may be modified and task, milestone and critical path may move without knowledge of traceability. With each phase of the project, costs and stakeholder aggravation can skyrocket due to these continually changing requirements.

Business Analysis and Project Management

The line between business analysis and project management is often blurred with a similar approach and methodical concept in problem solving. However it should not be said that one can completely fulfil the requirements of the other. For example, the work of a business analyst could be done during the requirements stage of a larger project, offer a project requirements brief to the project manager, submit business cases or feasibility studies and define a number of tasks that the project manager must track in a larger business venture. The analyst can act as a catalyst in the approval of project ventures by providing these pre-start deliverables. The business analyst can provide much needed support to the project manager by developing and obtaining sponsorship of scope, objective, expectation, benefits, approach, strategic fit, business case and budgetary pre-approval by senior management. This can allow the project manager to implement a plan to achieve these expectations.

The analyst brings specialised business knowledge to projects and programs of work while the project manager facilitates this knowledge and plans for a favourable outcome. Below (Fig3) is a diagram of activities the different roles command in organisation through a typical waterfall project process or system development life cycle.

Define	Analyse	Design	Build	Implement
<ul style="list-style-type: none"> - Offer a number of approaches - Conduct focus groups and Questionnaires - Take a statistical view - Consider all options - Define business requirements - Compile Business case 	<ul style="list-style-type: none"> - Confirm feasibility through analysis - Use analytical tools to break down issues - Analyse the business impact - Determine cost and profit potential - Determine potential benefits of the outcome - Analyse potential solutions 	<ul style="list-style-type: none"> - Define best solution - Define resources internal and external to the business - Monitor risks, issues and opportunities - Track ongoing business costs - Define the best practice and most cost effective work methods 	<ul style="list-style-type: none"> - Track ongoing business costs - Monitor build phase against original benefit definition - Implement practice and most cost effective work methods - Re-assess environment and financial measures 	<ul style="list-style-type: none"> - Manage stakeholder expectations - Communicate change with internal and external clients - Monitor project metrics and balance with expected outcome - Report on benefits to higher authority

Fig3: Potential roles of a business analyst

Final Thoughts

The critical enabler in defining the role, scope and impact of a business analyst, is the organisation itself where the analyst resides. Generic and high level competencies are visible including best practice skill in the application of technologies, academic proficiency and practitioner know-how; more particularly in requirements definition, scope, budget, benefits realisation management and managing stakeholder expectations. But it is the organisation that charges and moulds the analyst with its internal expectation.

Business analysts in small organisations have greater chance to grow their role into something bigger and diversify into other skills areas like project management. Small organisations must also be aware of the perils of single individuals retaining all the knowledge. As they move on to other enterprises, so does the intellectual property. In contrast, business analysts in large corporations can be more focused on the analytical side of the analysis, providing a more articulate and accurate depiction of the issue at hand. This essentially is the role of the business analyst, in arming the organisation with a detailed case to move forward.

Business analysis in its highest form can promote an entrepreneurial and learning culture in the approach to organisational issue and advancement requirements. Regardless of size, progressive enterprises must use a combination of the three business analysis domains of operational, strategic and project to an adequate amount of attention and detail to maintain their operational efficiency, market acuteness and project dexterity.

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Appendix A: Glossary of Terms

Balanced Scorecard (BSC)

The BSC is a strategic planning and management system that measures the four perspectives of financial, customer, internal process and employee learning and growth to give a view of business performance.

<http://www.unisa.edu.au/pas/qap/planning/glossary.asp>

BCG Matrix

The Boston Consulting Group Matrix is a strategic tool used to map priorities based on market share and growth of strategic business units in a 2x2 matrix model.

Benchmarking

This is a strategic tool where organisations evaluate aspects of their processes against best practices within their own sector.

<http://en.wikipedia.org/wiki/Benchmarking>

Business Process Re-engineering (BPR)

This is the efficient re-design of business processes and the associated systems in organisational structure in order to improve business performance.

Adapted from Hammer and Champy 1993, Reengineering the Corporation

Decision Tree

Can define courses of action by defining various decisions and their solutions, scoring them on reward (usually financial).

Data Flow Diagrams (DFDs)

The mapping of business processes showing inputs and outputs in a logical and graphical format.

EVM

Earned Value Management measures a project's progress at any given point in time, forecasting its completion date and final cost, and analysing variances in the schedule and budget as the project proceeds by comparing planned work to actual.

Feasibility & Financial cases

Usually the first step in implementing change through various methods that allows organisations to see the potential value to the business including features such as cost, time, risk, value and benefits outcomes.

Force Field Analysis

This is a strategic tool in the form of a diagram showing restraining forces coming down from above and reactive actions meeting them from below.

JAD / JRP

Joint Architectural Design (JAD) and Joint Research Planning (JRP) is the collaborative forum used to define issues and solutions through structured and unstructured dialog.

JIT

Just In Time is an inventory strategy implemented to improve the return on investment of a business by reducing in-process inventory and its associated costs. In information technology it is also known as *dynamic translation* and is a technique for improving the performance of byte code-compiled programming systems.

[http://en.wikipedia.org/wiki/JIT_\(computing\)](http://en.wikipedia.org/wiki/JIT_(computing))

Kaizen

This method aims for continual and incremental improvement and is similar in concept to BPR. Key elements are quality, effort, employee engagement, change and communication.
http://www.valuebasedmanagement.net/methods_kaizen.html

Mind Map / Brainstorming

Being with a statement and explode out from there using an open forum dialog and creative ideas.

Pareto Analysis (80/20 rule)

This statistical technique defines 80% of the solution benefits can potentially be realised by completing 20% of the work.

Process swim-lane modelling

A variation of the DFD used to graphically show processes in 'lanes' of responsibility.

PEEST

This analysis is used to scan the macro-environment in one snapshot of time. The acronym represents Politic, Environment, Economic, Social and Technical aspects of business.
http://www.valuebasedmanagement.net/methods_PEST_analysis.html

RACI

This is a tool for identifying roles and responsibilities during an organisation change program. A matrix is set out with tasks and positions and the appropriate letter (R = responsible, A = Accountable, C = Consulted and I = Informed) is assigned to individuals.
http://www.valuebasedmanagement.net/methods_raci.html

Rational Unified Process (RUP)

RUP is an iterative software development and customisation process describing how to via phases including inception, elaboration, construction and transition.
<http://en.wikipedia.org/wiki/RUP>

Reversal scenarios

Define improvements by asking the opposite question to what is desired. For example "how can we reduce sales?"

Risk Qualification

Using Australian Standards risks are rated from 1-5 in order of risk occurring and potential impact.

Strategy Maps

This is a diagram that describes how an organisation creates value by connecting strategic objectives in a cause-and-effect relationship under financial, customer, process, learning and growth objectives.
http://www.valuebasedmanagement.net/methods_strategy_maps_strategic_communication.html

Six Sigma

This is a measure of quality via a disciplined, data-driven approach and methodology for eliminating defects by driving six standard deviations between the mean and the nearest specification limit using sub-methodologies of DMAIC (define, measure, analyse, improve and control) and DMADV (define, measure, analyse, design and verify).
http://www.isixsigma.com/sixsigma/six_sigma.asp

Six Thinking Hats

Looks at the effect of a decision made from different points of view or White (rational), Red (intuitive), Black (cautious), Yellow (optimistic), Green (creative) and Blue (chairing) hats.

Total Quality Management (TQM)

This is a management strategy through a set of systematic activities designed to focus on driving quality standards in organisational processes.

<http://en.wikipedia.org/wiki/TQM>

TOWS analysis

A strategic tool to develop actions plans from Strengths, Weaknesses, Opportunities and Threats.

Unified Modelling Language (UML)

Used in software engineering and at architectural levels for modelling hardware, business process modelling, systems engineering modelling, and representing organizational structure.

(http://en.wikipedia.org/wiki/Unified_Modeling_Language)

Use Case

To capture a single function required of a proposed system or process, convey how they should interact with an Actor and describe a business task to serve a business goal.

Value Chain Analysis

To map organisational business units processes and measure value adding activities within them.

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