Workshop B – Data Analysis and the BA Service

Question 1 – Why do your BA's need to understand data?

Strategic business

- ❖ Business improvement
- ❖ Core to business operation
- ❖ Understand customer
- ❖ To inform strategy
- ❖ It underpins the business
- ❖ Insight into business
- ❖ Informed decisions
- ❖ Source of competitive advantage – other organisations are using it
- ❖ IT informs our business and enables us to measure it
- ❖ Best practice demonstrations of success or worth
- ❖ To make informed decisions (challenging policy, conventional wisdom)

Business metrics/analytics

- ❖ Using data to compare market competitors [e.g. growth]
- ❖ Connections and potential – opportunities being identified, IOT, BIG Data
- ❖ Demonstrate business performance
- ❖ Data is a representation of company's performance – validates or invalidates ideas
- ❖ Understanding what date is saying e.g. engagement score of 'X', what does this mean, what is context?
- ❖ Helps measure performance
- ❖ BA KPI's
- ❖ Spotting trends and patterns
- ❖ Skills gap – Data Reports, Data Analysts, Specialism
- ❖ Social media / trend data
- ❖ To enable in – life mis / performance metrics
- ❖ Use data to inform learning, continuous improvement
- ❖ Better understand changing customer base/ inform transformation, understand how users interact with system functionality

Compliance

- ❖ GDPR regulations
- ❖ Data handling [GDPR]
- ❖ Success based on data [or lack of it]
- ❖ Data security
- ❖ Security implications
- ❖ GDPR / Data compliance
- ❖ To meet our regulatory obligations
- ❖ New requirement for privacy by design and security

Business Case

- ❖ Inform benefits analysis
- ❖ To express the business case
- ❖ Quantify benefits – and ROI

- ❖ What are we improving / reducing – they all have metrics
- ❖ Outcome driven programmes – metric driven
- ❖ Technical feasibility
- ❖ Data evidences the problem (or not) and supports decisions

Intertwingled with business processes, activities etc
- ❖ Helps inform decisions
- ❖ Highlight business assets and relationships
- ❖ Align with process flow and validation
- ❖ Validate [e.g. Requirement, MVT]
- ❖ Qualifying business requests
- ❖ Can inform initiatives / activities
- ❖ Help business by translating data, clarify definitions/ KPI's drive consistency
- ❖ To specify interfaces – data inputs and outputs and to identify gaps which informs requirements
- ❖ Enables for efficiency and improvement
- ❖ Interrogate data requirement first – MI is key
- ❖ Understanding how data flows through your organisation, helps to validate / derive insight into your architecture
- ❖ Like blood in the body – it connects all the parts together
- ❖ Data affects process and vice versa
- ❖ Process and outcomes
- ❖ Understand upstream/downstream impacts of changing business process

Key System view
- ❖ Part of requirements modelling and gathering – early insight / M1
- ❖ Support varied perspective's
- ❖ To validate requirements e.g. do cases exist that business believe do?
- ❖ Common understanding
- ❖ Impacts of change
- ❖ Modelling relationships between business entries v important to ensure correct solutions built / purchased
- ❖ Data can show/hold business rules
- ❖ Risk modelling
- ❖ Understanding structured / unstructured nature of data
- ❖ Data modelling draws out requirements that might otherwise be missed.
- ❖ Not just reference as a metric
- ❖ Story behind the data – making it more than just the numbers
- ❖ Stopping stupid ideas through data – example of value
- ❖ Data lifecycle considerations
- ❖ (in services) Data is our raw material it's what we transform to provide a service
- ❖ Integrations
- ❖ Identify exceptions and edge cases
- ❖ Digital solution rely on good data
- ❖ Capturing understanding about data e.g. data dictionary, data definition
- ❖ Understand the business needs for the data -*Why and What? *Data ownership and storage

Data Quality / Non-functional
- ❖ Fit for purpose and quality
- ❖ Quality / security of data

- ❖ Need to understand if data is good quality, understanding sources, what/ where is, single version of truth, how to join sources together.
- ❖ It doesn't lie – or does it?! – Data quality - Issue / constant
- ❖ Managing risk associated with data capture and storage
- ❖ Quality of data -qualitative / quantitative
- ❖ So that we can ensure data is kept safe and secure

Data focussed change
- ❖ Need to manage different types
- ❖ Lots of it – increasing
- ❖ Understand domain model
- ❖ Stakeholders need it
- ❖ Understanding data journey
- ❖ Data traceability
- ❖ You can't avoid data, some projects are purely about data
- ❖ Reduced cost of sourcing the same data from multiple channels

Other
- ❖ Helps you to ask the right questions
- ❖ Connections and potential – opportunities being identified, IOT, BIG Data
- ❖ A mention of validating assumptions
- ❖ Personalisation
- ❖ Understanding if something being said is accurate, so can talk authoritatively and make a solid case.
- ❖ A way of validating requirements and driving prioritisation, improvements and frequencies
- ❖ Encourage skill sharing with team as share skills [are you in the matrix or seeing it]
- ❖ Self-sufficiency and understanding the whole problem – improves confidence
- ❖ Build products that collect the right data
- ❖ Supports prioritisation
- ❖ Quantitative evidence in the investigation stage of BA work

Question 2 – What are the Skills/competencies the business analyst needs to work effectively with Data?

Mindset
- ❖ Thinking of data as a core part of the job and having confidence to handle data
- ❖ Integrity
- ❖ Strategic thinker and alignment
- ❖ Logical
- ❖ Reflective learner
- ❖ Logical or scientific approach – test hypothesis
- ❖ Belief in power and importance of data, especially in relation to the future.
- ❖ Growth mindset
- ❖ Resourceful
- ❖ Stay focused on the problem or bigger picture
- ❖ Able to deal with abstract
- ❖ Detail orientated
- ❖ Inquisitive – finding sources of truth

❖ Willingness to learn, ask for feedback

Classic BA skills
- ❖ Keen eye for detail
- ❖ Interpersonal Skills?
- ❖ Ability to work at different levels, see big picture but also attention to detail
  - o What are you trying to answer?
  - o How might the data be needed in the future
  - o What's the bigger picture for the business?
  - o What are the requirements p/s and how do you capture the data?
- ❖ Documentation techniques
- ❖ Communication: Technical or not technical
- ❖ Recognise patterns / trends
- ❖ Elicitation skills
- ❖ Negotiation skills
- ❖ Tell a story – the ability to present data finding to businesses in easy, jargon free way
- ❖ Think about data at every stage of BA Life Cycle especially definition and defining baseline
- ❖ Stakeholder identification
- ❖ Ability to communicate data to business / translate and present at right level

Business
- ❖ Domain – technical, knowledge and regulatory
- ❖ Strategic analysis
- ❖ Terminology, semantics
- ❖ Understanding of terms being discussed
- ❖ Domain knowledge – context
- ❖ Business rules
- ❖ Business understanding
- ❖ Bigger picture – enterprise modelling

Data, Information and related specific
- ❖ Knowledge of data governance
- ❖ Data definitions /dictionary – understand BA responsibility in this
- ❖ Data modelling– conceptual
- ❖ Understanding of business domain (domain modelling) conceptual data modelling
- ❖ Logical data modelling (do BA's need to do this?)
- ❖ Modelling skills and notations – UML class diagrams, ERDs, data flow diagrams, state machines
- ❖ Knowledge of statistics
- ❖ Testing?
- ❖ Visualisation
- ❖ Data quality
- ❖ Value-add; explaining what the data means and identify patterns
- ❖ Understanding of data modelling standards
- ❖ Data mapping
- ❖ Normalisation
- ❖ Data mapping / ETL
- ❖ Data scheme (COTS)
- ❖ Relationships between data items
- ❖ Cope with ambiguous or poor quality data

❖ Judgement about what the data is telling you and acting on the 'so what' about it

Technical (tools and technology)
❖ Understand the organisations tool or repository for date e.g. self-training
❖ Knowledge of tools – reporting (SQL), modelling
❖ Knowledge of architecture
❖ Excel, power BI, SQL, progress, oracle – tools
❖ Technical skills for relevant systems
❖ Cooling / tableau knowledge
❖ SQL querying
❖ Technology skills e.g. Excel, databases, reporting tools
❖ Technical knowledge on how data is stored, shared – e.g. API's, DBS, different systems mapping data, similar names not the same
❖ Database structures
❖ System architecture – including peripheral sources
❖ Developer background helpful

Other
❖ Prepared to ask the data experts questions – especially 'naïve'
❖ Networking with any data specialist in the organisation and speaking their language, knowing how to question and understand the results.
❖ Knowledge sharing for BA Experts and using resources if not an expert
❖ Patience / comfort being out of control zone

Question 3 –How would you encourage your BA's to include data and information analysis as a standard part of their service?

Changing Mindset (BAs and stakeholders)
❖ Understanding of data strategy and ownership
❖ Recognition
❖ Promote value of quality of data
❖ Remove blockers
❖ Make it fun
❖ Leadership, sharing importance of understanding/using data
❖ Rebadge it as business information
❖ Encourage, interest and curiosity
❖ Difference – data, info, knowledge and wisdom
❖ Share successes about the value of data to business
❖ Find ways to measure success with data driven projects
❖ Recognise that data analysis supports better solutions and provide examples of this
❖ Empowering curiosity around data

Extending "BA Practice as usual"
❖ Articulate how BA's add value to data
❖ Understand customer insights using data available – what is available?
❖ Create standards
❖ BA playbook
❖ Provide time in project estimates

- ❖ Include in: Standards, objectives and templates
- ❖ Guidelines – when to use and how to use [helps to understand value]
- ❖ Centralise data models (in a repository) so that each new project / BA doesn't have to start from scratch
- ❖ Process mapping and data relationships
- ❖ Bake data analysis onto project / deliverables templates and standards
- ❖ Agree how with data teams, roles and responsibilities, hands off points (where appropriate)
- ❖ Closer working with Enterprise Architects / DBA's / Solution Architects
- ❖ Don't rely on projects (technical roles) to maintain these models
- ❖ Define a core competency framework and include data
- ❖ Quality management check for each project
- ❖ Look at roles / operating model of BA Team – what's needed?
- ❖ Introduce tools which can help make data less scary, demystify data and templates
- ❖ Provide easy tools – drag n drop and training

Re-using "BA Practice as usual"
- ❖ Peer reviews
- ❖ Manage the reskilling as a change in itself
- ❖ Focus groups
- ❖ Cross checking requirements to ensure completeness

Addressing skills gaps
- ❖ Identify knowledge / skill gaps
- ❖ Include as a personal development objective
- ❖ Include in performance review / capability matrix
- ❖ Attend internal training on systems and data
- ❖ Recruit the skills
- ❖ Training on data / BI concepts
- ❖ Training on tools and techniques available
- ❖ Training – check strategy of how to use

Supporting learning curves (individual & practice)
- ❖ Share best practice and learn from mistakes
- ❖ Guidelines – when to use and how to use [helps to understand value]
- ❖ Buddying / mentoring – Business SME's
- ❖ Knowledge sharing sessions with data, BI Teams, lunch and learns, demystify data
- ❖ Networking and benchmarking – coaching, external
- ❖ Show case studies and results / benefits
- ❖ Start small – find datasets where you can home craft and experiment e.g. real life invitations
- ❖ Understanding of simple data terminology – increase confidence
- ❖ Give time / opportunity to learn (monitor), research and share learnings
- ❖ Allowing BA's to fail and learn in a safe environment
- ❖ Meet with SME's
- ❖ Ensure BA's understand the relevance of the data, the value of the solution and business
- ❖ Sharing experiences and storytelling, use cases.
- ❖ Building BA confidence and competence, mentoring with 'Data People'
- ❖ Engage with experts – mentoring, building relationships, formalising internally
- ❖ Give set of questions / checklist / toolkit to confide data
- ❖ Shadow data team – how do they work with and interpret data