**Data and Analytics Maturity Assessment**

STRATEGY

What level of sponsorship does data & analytics have in your Organisation?

1. We do not have a sponsor
2. We have a champion within the team but don't have a senior sponsor willing to invest
3. We have a senior sponsor (not C-Level) who is currently working to get C Level engagement
4. We have a C-Level sponsor who doesn't yet have data and analytics objective(s) and/or a willingness to invest
5. We have an engaged C-Level sponsor who has data & analytics objectives and a willingness to invest

How well does your data & analytics strategy support your business strategy and associated goals?

1. We don't have a data and analytics strategy
2. Strategy in place for some functions but very siloed in nature
3. Strategy in place for majority of functions but with a lack of understanding of business priorities of different functions
4. Consistent view across business but more around operational reporting than supporting longer term strategic decision-making
5. Data and analytics are used to drive operational excellence, enhance customer experience, guide product innovation and improve risk management

Do you have a data and analytics road map?

1. We have no roadmap in place
2. We have an incomplete roadmap
3. We have an existing roadmap but it's not regularly updated
4. We have a completed roadmap which is shared internally
5. We plan regularly with reviews and updates

Do you track the benefits of your analytics projects?

1. We do not track benefits
2. Benefits are tracked within a few functions, but without consideration of the impact on adjacent departments performance
3. Benefits are tracked within the majority of functions, but without consideration of the impact on the adjacent function’s performance
4. Benefits tracked within functions for majority of use cases / projects and some consideration given to impact on adjacent functions
5. Analytics benefits measured and tracked for each use case / project and communicated across the business

PROCESS

How do you filter, prioritise and fund incoming analytics requests?

1. No demand management in place
2. Requests reviewed sporadically but no consistent processes in place to prioritise requests
3. Some processes in place to manage analytics requests but generally completed in an ad-hoc fashion
4. Processes in place to prioritise incoming requests but only infrequently
5. Processes in place across the organisation to filter, prioritise and fund incoming analytics requests on a frequent and regular basis

How do you maintain and remove data and dashboards?

1. No reporting lifecycle management in place
2. Only ad-hoc reviews in place
3. Some processes in place at a functional level, but only in silos across the Organisation
4. Processes in place in most functions
5. Processes and automation in place across the entire Organisation, in an integrated fashion

How are business processes documented and communicated?

1. Business processes are not documented
2. Documented for some functions but not all, with inconsistencies in documentation and often out of date
3. Documented for most functions but some are out of date
4. Documented for all functions, generally up to date
5. Fully documented across the whole organisation in a consistent manner and fully up to date

How is the usage of analytics driven into your Organisation?

1. No measures in place to ensure adoption of analytics solutions
2. Brief instructions emailed out with link to dashboard
3. Detailed but static user guides distributed via email with link to dashboards. Ad-hoc tracking of adoption
4. Detailed user guides delivered via meetings and accessible online. Adoption tracked for majority of dashboards but typically not against clearly defined success criteria
5. Detailed user guides delivered via meetings and accessible online, supported by on-demand videos / Gifs. Adoption measured for all dashboards with clearly articulated success criteria

DATA

What types of data are you able to generate value from?

1. Mainly simple, structured data. Data is stored in files like Excel and csv. There may be some transactional systems but the data is only available within those systems
2. Mainly using structured data sources required for regular reporting. These come from files or system extracts. Ad-hoc data files are also used in departments
3. Structured data is regularly used as the main type of data across the organisation. Unstructured and semi-structured data is also being used in an ad-hoc manner, and there are general guidelines and best practices for dealing with these data types
4. All data types can be used, whilst structured data is used widely and consistently. Semi- and unstructured data is being used more widely in silos across the Organisation
5. All value is extracted from all available data, regardless of type, and used in the most appropriate way as part of everyday business processes.

How readily available and governed is the organisation’s data for analytics in all its forms and can people find and access it?

1. People don't typically know what data is available and gather and create their own sets of data, usually manually.
2. Restricted access is given to regular data sources. Users often extract this data and add other data for their individual purposes. Data in files is not well controlled
3. Structured business data is available for use to all users that need it. New data that proves to be useful is made generally available. Users also make use of semi and unstructured data
4. There is a well-understood availability of all structured data. External sources can be made available. Semi- and unstructured data is also available
5. Data is fully available via regulated channels as appropriate for the business. All data models and definitions are understood and are used correctly across the business. Data for experiments is also available appropriately.

Is your data defined, standardised and consistently modelled for analytics purposes?

1. No defined models, individuals build models based on specific needs. Data definitions are dependent on individual knowledge
2. Data from regular systems have an understood structure within those systems. Departments also create their own KPIs and calculations
3. Data models are being built to enable cross-system reporting but often stored in data silos. Standardised KPI definitions are defined but sometimes at department level only
4. All structured business data is well understood and modelled for analytics. Standardised data definitions and calculations exist.
5. All regulated data is well defined and modelled. New data has a well understood process for being made available in the same quality way

How consistently is the data refined, processed and governed to the correct level required for the specific analytics?

1. There is no official governance of the data. Any data cleansing is dependent on individual need and knowledge
2. Access to regular data sources is governed. Data outside of these systems is not. Data correction may happen within the data systems or by individuals that extract data from these systems for reporting
3. Data extracted from systems into models are cleansed and governed. Other sources use are still often ungoverned and reliant on individual knowledge. Standardisation of reference data is occurring, but not enterprise-wide
4. All regular data access is governed and audited. This data has passed through standard cleansing processes. Governance and cleansing processes are mature and well managed
5. All regulated data has the same level of data quality applied. Access to data is well governed and auditable. All data has the appropriate level of processing, cleansing and auditing applied

PLATFORMS

How do you store and manage all of your data assets securely?

1. Data stored in files, folders and transactional sources systems. Data security does not often exist
2. Structured data stored in silos or files across departments. Unstructured or semi-structured data is not well managed. Data security implementation is inconsistent
3. Data storage is able to store most of the different types of data in the organisation. There is a central location for data assets but still some silos. Data security is a central requirement
4. Well-established data storage strategy to cover the majority of data, including data lake, data warehouse, streaming and advanced analytics requirements. Well-established security and data access policies in place
5. The platform is in place to effectively store and manage all the data assets of the organisation in a secure and trusted manner

How do you perform cleansing, shaping and modelling of your data in line with your data strategy?

1. Ad-hoc editing of data, often in Excel or directly in data files
2. Excel is still mainly used, with some macros helping. Moderate use of Bl tools with data prep capability are now being used to enhance this process. Departments may also be building their own siloed data models
3. Using analyst-led data prep tools, often to build dashboard-specific data models. Still done at department-level, rather than a central team. Some centralisation occurring
4. Enterprise-wide data preparation capability fully integrated with enterprise data platforms. Well-established methodology-driven modelling approaches. Ad-hoc requirements are serviced with an agreed set of tools
5. Using all integrated tools fully and automatically. Well defined data models and methodology governed and created by the right teams. Adding new data sources is understood and well-practiced

How well do you manage master data?

1. No sources of this information available. It's based on local knowledge
2. There are some departmental-based data dictionaries but they are inconsistent. Master data is also departmental-based but some core organisational master data lists exist
3. There are some published data dictionaries and generally a centralised approach to providing this information. It's mostly done via document sharing rather than specialist tools. Centralising of core data is occurring
4. Central data dictionary exists to provide information about data assets and the core data is also centrally managed and provided. The approaches are well understood by users
5. Data metadata is aligned and maintained, search is easy, governance is tight, data properly tagged and defined. All managed by a central data team

What tools are available to support your users to do the reporting, analysis and data interactions required to deliver on your organisation’s data & analytics strategy?

1. Individuals use various tools to access data, usually Excel as the dominant tool. Source system data analysis is restricted to canned reports on those systems
2. There are departmental-based tools in use, especially for BI reporting and analytics. Excel is still prevalent and dominant. Some specialists use database tools. Access to semi- and unstructured data stores is uncommon and on an ad-hoc basis
3. There is established use of analyst-based analysis and visualisation desktop software (eg Alteryx, Tableau, Qlik, PowerBI) - Any advanced analysis is done using the predictive capabilities in those tools. Some advanced analysis also done on data sandboxes
4. There are well-established, enterprise-wide tools for data analytics, ad-hoc data prep, data science as well as data feeds to downstream processes
5. Leveraging all the tools available synergistically. Self-service analytics are deployed to the organisation via online analytics tools. Everyone in the business is a Citizen Data Scientist

ANALYSIS

What type of analysis does your team/ organisation complete?

1. Descriptive Analytics is widespread - answering the what has happened questions. This is typically transactional and operational
2. Diagnostic analytics is widespread - performing analysis to understand why things happened the way they did
3. Predictive analytics is widespread - using historic data to understand what will happen in the future
4. Prescriptive Analytics is widespread - using analytics to generate foresight to establish what should be done in the future
5. Self Learning Analytics (Al and machine learning) is widespread - using analytics to establish what we do not yet know

How automated is your analysis?

1. Little or no automation in place. All analytics and reporting tasks are management manually
2. Automation is used sporadically and is restricted to specific uses, using legacy tools (e.g. VBA in Excel)
3. Core reports have been automated using modern Bl platforms but this is not widely available to all analysts
4. Business function reports have been automated and all analysts have access to a modern Bl platform that supports automation
5. Data science projects and machine learning is present. Al is being used to automate processes in some cases

How is your analysis shared?

1. Static reports and information are shared manually (e.g. via email or printouts)
2. Interactive reports are shared manually (e.g. via email). Multiple versions of the same analysis exist
3. Analysis is shared via secure file sharing methods, however, duplicate content still exists due to a lack of governance
4. Secure, scalable, browser-based modern analytics platforms are leveraged and accessible by the majority of the organisation
5. Secure, scalable, browser-based modern analytics platforms are leveraged and accessible by the everyone in the organisation, and self-service analytics is widespread

How do people access your analysis? Is it secure?

1. Security is not really considered and analysis is fully accessible to those who have access to it (e.g. hiding tabs in Excel)
2. Simple, single-level security measures are applied manually (e.g. Password protected Excel models)
3. Security is centralised per application, and controlled at the user level
4. Security is centralised across applications, controlled at the user level, and is also scalable
5. Highest levels of data encryption and security features are deployed (e.g. biometrics), including previously mentioned considerations.

CULTURE & SKILLS

How developed and structured is your data & analytics community?

1. There is no tangible data and analytics community present
2. An informal community exists via analytics focused internal meetings to discuss and share analysis. Official roles are not defined
3. Formal communication channels (e.g. Teams), and resources (e.g. intranet, newsletters and discussion forums), are used to promote data and analytics across the organisation
4. Regular activities to accelerate and reinforce data and analytics take place and community leadership roles are defined
5. Structured community activities take place, driven by defined community roles and there is widespread awareness across the organisation

What is the extent, range and level of technical and soft skills in your team/ organisation?

1. Analytics skills are basic or non existent and are limited to legacy platforms (e.g. simple Excel functions)
2. People are proficient with legacy analytics platforms (e.g. Advanced Excel users) and some are using self-service BI analytics platforms
3. Analysts are skilled in modern Bl platforms to automate or accelerate analytics processes
4. Analysts are able to take ownership and automate analytics workflows using online analytics platforms (e.g. Tableau Online or Alteryx Server)
5. Analysts are highly proficient across the team and across multiple platforms, including data science and Al

Do you have a structured approach to developing the relevant skills in your people?

1. No structured learning program is provided and all learning is done "on the job" or is self-applied
2. There is a limited budget for training courses and conferences. Learning materials are accessed in an ad-hoc manner
3. Training programmes are held in-house on a fixed scheduled, and delivered across multiple modern Bl platforms
4. A regular analytics learning program is a prerequisite for analysts to enter the full time role
5. A regular analytics learning program is a prerequisite for analysts and on demand training is always available

Do you have standards in place that drive best practices?

1. There are no agreed or published standards
2. Documentation exists around analytics processes and solutions and the need for standards is recognised
3. Thorough guidelines and documentation exists about internal and external best practices and measures are taken to enforce these
4. Processes enforce documentation while solutions are being developed. Alignment to standards is enforced
5. Advanced processes are in place to enforce documentation and application of best practices (e.g. though Artificial Intelligence)

Result:

Low, Moderate, High, Excellent

1. Stratergy: A comprehensive data and analytics strategy sets the pace, direction and cadence of the organisation’s approach to data and analytics. It enables the successful communication of scope and business impact between leaders responsible for driving data and analytics and business leaders responsible for achieving the business goals. Your data and analytics strategy should also be supported by a roadmap, which acts as a functional blueprint that will guide you from where you are now to achieving your business goals. Your roadmap should translate the ambitions of your data and analytics strategy into a long-term action plan; driven by timelines, deadlines, milestones, and key metrics.
2. Process: Process is fundamental to the overall data and analytics maturity of an organisation. Without defined processes in place to drive the adoption and use of data, and documentation to ensure best practices, a data and analytics approach can become fragmented. In turn, this will lead to confusion and a loss of faith in the value that data and analytics can bring. We break-down process into four dimensions, each of which are crucial for your organisation to implement:

**1. Demand pipeline** - The processes required to receive, filter, prioritise and fund incoming analytics requests.

**2. Adoption** - The ways in which usage of analytics is driven into the organisation’s DNA.

**3. Reporting Lifecycle Management** - The processes required to add, maintain or remove data and dashboards.

**4 - Business Processes** - The documentation and communication of business procesess, to ensure understanding of operations and workflows across the organisation.

1. Data :

To start analysing data efficiently and effectively, the best place to start is by focusing on the business challenges and then identifying the data which can help inform decisions in those areas.

However, generating value from different data sources and data types isn’t that straight forward.

First of all, you need to ensure the availability of your organisation's data for analytics in all its forms, so that you can generate value from both structured and unstructured data, all of which needs to be made available across departments, so to avoid data silos.

Then, there is the standardisation and modelling of that data for analytics purposes, which needs to be methodology-driven and logically documented so that data consumers understand it.

And finally, the data continually needs to be refined, processed and governed, to ensure the integrity of your data is conserved through processes that give instructions on exactly how to manage data assets within your organisation. By providing a formal, standardised process for good data handling and processing across your company, you can ensure that the data that you end up analysing to make important business decisions is the best it can possibly be.

1. Platforms:

Efficiency, security, robustness and data government capabilities are all important factors in delivering the right platform solution for your data and analytics objectives.

As such, it is important you understand the necessary platform requirements for effectively storing, managing, preparing and analysing your data.

Taking advantage of cloud based solutions will really help to accelerate your maturity here. They dramatically cut the need for infrastructure investments, scale to suit your needs, enabling you to start projects without such a large CapEx outlay.

We would recommend investing in a data warehouse as your central repository of integrated data from across your organisation. Its purpose is to store and organise your data (current and historical) in a format that is fit for reporting and analytics, and in a clear business-focused data model that the end-users can interpret.

The consistency that a data warehouse brings is perfectly suited for flexible, quick, and reliable analysis. This results in the data warehouse becoming the foundation of trusted data that will support organisation wide analytics and help you evolve into using more advanced analytic capabilities.

We also recommend moving away from Excel. As a file-based platform, Excel was not built with cloud-based sharing and collaboration in mind. While using a separate sharing platform is certainly an option, this in turn creates a new dependency. Beyond difficulties in sharing reports, there is perhaps the even larger issue of security. An Excel file can be locked down with a single password, but this is simply not sufficient to safeguard sensitive internal data.

In a world where data security and data integrity are becoming ever more crucial, taking risks with your data is not something that any business should do lightly. As such, we recommend moving to a modern Business Intelligence (BI) platform, such as Tableau or Power BI.

1. Analysis:

Analysis is the process of breaking down your data in order to gain a detailed understanding of it, for specific needs and purposes. In modern business, this is done in order to improve business outcomes through more effective decision making and enhanced customer experiences.

The analytics space is developing rapidly, with advanced analytics becoming more and more common place. While the forefront is being continuously extended and sophistication of analysis grows, the fundamentals, and value of this, firmly remain. “Good” is not only reserved for those at this cutting edge.

Our framework considers four keys areas of focus within analysis: Sophistication, Automation, Dissemination and Permission. Ensuring you have the foundations covered, at the appropriate level for your organisation, will give you the foundation you need for best practice analysis.

The level and sophistication of analysis that you target within your organisation should support your objectives. When considering how advanced your analytics should be, aim for the level of sophistication of analysis to support your strategic plan, in both your as-is and future scenarios.

You should aim to automate analysis where possible, removing the need for manual intervention for things like data and report refreshes, which more advanced methods allowing the automation of decision making using artificial intelligence (AI).

Dissemination, or sharing, when done properly, minimises the duplication of content, maximises content governance and allows your analysis to be easily and readily accessed. You avoid creating multiple versions of the same thing, which can untimately be changed and shared further byond your control.

Finally, Permissions. This ensures that what you are sharing, and who can access it is strictly governed. This protects sensitive data and content, such as financial and personalyl identifiable data.

1. Culture & Skills:

Culture and skills can be defined as the approach to the development of employee skills and best practices with regards to data and analytics.

A data and analytics culture must fit within the wider culture of an organisation. If there is a clash between data culture and organisational culture, this will lead to friction and confusion and an ultimately ineffective data and analytics strategy. As such, the very first thing to remember when trying to build a data-driven culture is that it must be supported at all levels of the organisation.

Skills are defined by the people within an organisation at any given point in time – in the fast-paced world of data and analytics, these skills must continually evolve to help individuals and organisations meet their business requirements.

Developing your organisation’s data and analytics maturity is dependent on having the right culture and the necessary skills. Building an effective data and analytics community is central to this. The shared sense of purpose and the collaboration a community can deliver, will help your organisation to use data to much greater effect than if you continue operating in disengaged silos.

On the skills front, you will need to identify the right training requirements to develop your employees’ skillsets, by focusing on people’s roles and responsibilities and assessing their overall maturity and competencies.

By collaborating with business leaders and HR to develop holistic training programs by assessing skills and training requirements, designing upskilling roadmaps, and determining training performance metrics, you will be able to tailor data and analytics training programs based on users’ change readiness and capabilities to improve their data literacy over time, as the users’ skills and needs evolve.

Using a mix of training delivery methods by considering the time, location, technology, role and skills differences, you will be able to improve overall learning effectiveness and experiences for new data and analytics capabilities across your organisation.

Finally, it is important to have the right processes in place to measure the business impact arising from improved workforce data literacy. By evaluating training performance against various metrics, you will be able to quantify the value and impact to the business, as a direct result of your data and analytics training programs.

Suggestions:

Low and Moderate

Strategy

* How to secure executive board support for your data & analytics initiatives
* How to build a data strategy that delivers business value
* Building a data & analytics roadmap which delivers business value
* 3 tips for measuring the business impact of your data & analytics initiatives

Process

* Process
* How to embed analytics into decision-making processes
* An introduction to data lifecycle management
* Why you need a dedicated data & analytics team to bridge IT and the wider business functions

Data:

* A Business Leader's guide to data & analytics governance
* How-to get the most out of your semi-structured and unstructured business data
* How to win the battle against your data silos
* A guide to defining governance, best practices and standards

Platforms:

* 5 reasons why your business should be using a cloud data warehouse to manage and store your data
* Cloud service models: A comparison of the benefits and drawbacks of IaaS, PaaS and SaaS
* 5 reasons why you shouldn't be using Excel for business reporting in 2021

Analysis:

* How sophisticated is your organisation's analytics?
* How to choose the right BI tool for your business
* How to leverage the power of data visualisation
* How to Leverage AI to automate Human Decisions

Culture and Skills:

* 5 key ingredients for building a data & analytics community in your organisation
* 10 topics every organisation needs to include on their data literacy curriculum
* Priority roles for building a data & analytics driven organisation
* 5-steps to improve data literacy, boost revenue and cut costs in 2021

High and Excellent:

Stratergy:

How to accelerate your data & analytics growth by working with external service providers

Process:

* How to embed analytics into decision-making processes
* An introduction to data lifecycle management
* Why you need a dedicated data & analytics team to bridge IT and the wider business functions
* Creating an optimal organisational model for data & analytics

Data:

A Business Leader's guide to data & analytics governance

Platforms:

* 5 reasons why your business should be using a cloud data warehouse to manage and store your data
* Cloud service models: A comparison of the benefits and drawbacks of IaaS, PaaS and SaaS
* Cloud Data Warehousing Playbook for Small and Mid-Size Enterprises

Analysis:

* How to Leverage AI to automate Human Decisions
* Where are you on your AI journey?

Culture and Skills:

* 10 topics every organisation needs to include on their data literacy curriculum
* Priority roles for building a data & analytics driven organisation
* 10 reasons why you should have a data & analytics centre of excellence
* How a centralised or hybrid data & analytics practice helps to ensure standards