WHITEPAPER 2019

BIG DATA ANALYTICS IMPLEMENTATION

Stars to guide today's CFO

antares

a member of the CLOUD collective

EXECUTIVE SUMMARY

Big Data analytics is much more than a buzz phrase. It is a critical factor that is increasingly impacting the business landscape. Big Data has not only woven itself into the fabric of 21st century commerce, its importance is expanding and cannot be unstitched.

> The latest McKinsey Global Survey on the topic reports that respondents say that since its 2017 survey, the changes data and analytics have brought to their industries are growing in both magnitude and scope. The McKinsey verdict: *"A thoughtful strategy is, of course, critical to success in nearly any business endeavour, and data and analytics initiatives are no different. But the results highlight the particular perils of responding haphazardly to the competitive shifts driven by data and analytics. Among respondents whose companies have not yet met their data and analytics objectives, a growing share acknowledge that lack of a strategy for these areas is a significant obstacle to success."*

The tsunami of data is both an exciting and intimidating challenge for today's business decision makers. Yet it is also an opportunity. Analysts and commentators are unanimous in their verdict that the appropriate deployment of data analytics will ensure businesses can boost innovation. This in turn will allow those companies to improve their commercial reach to not only new or existing, but as yet unrecognised, market opportunities.

According to Deloitte, more than 40% of Australian private companies will invest in

business intelligence / data analytics in 2019. Data analytics will not only enable more effective marketing of current products but has the potential to unleash new business horizons through the understanding and creation of entirely new products and services .As a result, properly implemented data analytics will augment human capabilities, which will deliver measurable gains in employee productivity. Staff will be freed up to tackle more rewarding and higher-value tasks.

The consensus: it is the CFO level that will be best equipped to achieve these goals by taking ownership of an organisation's data projects. While there is the strong opportunity to lead the company commitment towards this brave new world, today's CFO needs to tread carefully on this unfolding data implementation landscape.

SOME OF THE BIGGEST CHALLENGES

The need to set out clearly defined benefits

Recruiting or training up the right talent

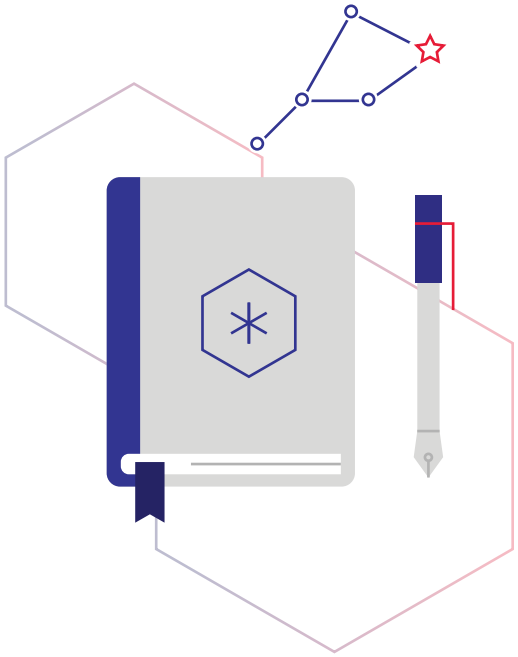
Overcoming the existing and inevitable functional silos

Data projects come to life because a business issue needs to be addressed. The starting point is to ask the right business questions. These should be driven by the overall objectives of the company. Next will be the task of addressing key metrics for key people in the business. With that blueprint in place, a more focused search can be undertaken for the most relevant data and IT environment that will satisfy the needs of the data project.

The finance department vision for 2020 and beyond has been transformed. The CFO leadership role has evolved into that of principal decision-maker and the guardian responsible for future proofing the organisation's success. Traditionally the finance team interest was centred on accounting but is now being re-directed towards

strategic financial management augmented by analytics. Today those same teams need to embrace the new holistic business model. That requires translating data insights into decisions that add value and equip the company to fully grasp tomorrow's business opportunities.

STARS TO GUIDE THE CFO



Today's CFO needs some stars to guide a best-practice approach for implementing a big data analytics project. Failure to capture, analyse, share, and act on analytics' powerful offering is an unacceptable risk for future business success

The CFO incumbent, whether in a large or small organisation, will face the common organisational obstacles to data implementation. Those obstacles may well have become ingrained over time, and therefore taken on a traditional pride of place in a company's culture.

COMMON ORGANISATIONAL ISSUES

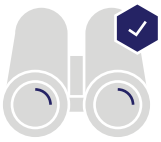
Disrupting and unstitching – in the most effective manner – these organisational obstacles will require some foresight, sensitivity, and careful footwork by the CFO.

- Data silos – critical company data stored in different locations and difficult to centralise
- Data hoarders – despite all being on the same side and supposedly sharing the same vision
- Scepticism – senior executives, possibly fellow C-suite colleagues, yet to overcome their suspicion that data and analytics is overrated and believe instead in their own instinct and experience

- Communication as an afterthought – resulting in minimum stakeholder buy-in and therefore probable lack of budget

KEY SIGNPOSTS IN THE BIG DATA ANALYTICS TRANSFORMATION JOURNEY

THE FIRST SIGNPOST IS RECOGNISING THE CRITICAL PHASES OF ANY DATA ANALYTICS IMPLEMENTATION PROJECT



Business understanding
Identifying the critical business issue

Data understanding
Identifying the data that needs analysing

Data preparation
Ideally the data team should comprise business and technical people

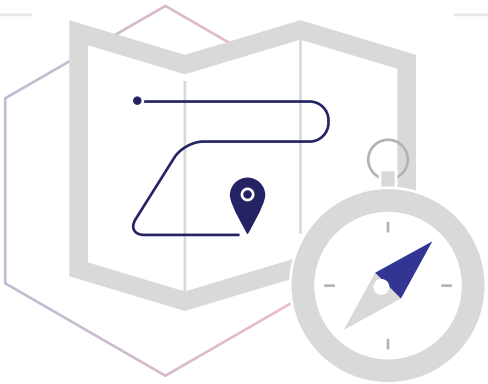
Modelling and testing
Challenge hypothesis with clean data and experiment with different data sources. Then test that model with "what if" scenarios

Rollout
Receive sign off from senior executives and embed the change management philosophy into the systems and processes

BUSINESS PERFORMANCE

This transformation offers an important opportunity for CFOs to drive business performance. But doing so demands that C-suite executives get a consistent, 360-degree view of metrics and a cohesive set of analytics to make data-based decisions. As the data analytics transformation increasingly enables cross-organisational transparency and data sharing, it empowers the company's key functional executives to deliver better results by collaborating more effectively.

ROADMAP



Data analytics implementation strategy should be determined and accompanied by a roadmap. Companies need to build an enterprise-wide concept of critical data analytics opportunities. Harnessing superior insights provided by data analytics has the potential to transform parts of their current business processes.

A strong data capture and governance regime is important because today's CFO function is likely to be overwhelmed with the number of systems and applications running in the organisation. The volume of data being generated across the enterprise is formidable.

> With more data available than ever before, its value is squandered if companies are not able to use this data to generate information, knowledge and most importantly, actions. Creating a single view of the organisation's operations with data coming from so many places remains a distant dream for too many organisations.

Yet the savvy CFO will instinctively realise that harnessing real facts about the business will facilitate the ability to make the right decisions.

BUILD OR BUY

When looking to evolve business intelligence and data analytics capabilities, CFOs will either choose to keep these skillsets in-house, or choose to outsource to an external partner or team. There are advantages and disadvantages in both approaches that must be balanced.

ADVANTAGES TO A DIY APPROACH INCLUDE

- Potentially greater control and lower compliance risk given you're managing your own data
- Potentially retaining / growing a deeper understanding of how your own business operates
- Managing good communication and information flows with a specialist outsourced firm, and ensuring you remain a priority can be challenging

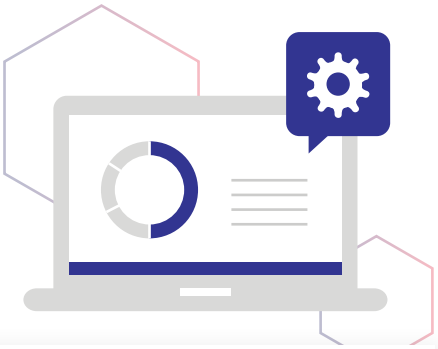
ADVANTAGES TO OUTSOURCING TO A SPECIALIST FIRM INCLUDE

- Assembling internal teams can be difficult and costly, as is retaining highly skilled BI professionals in-house
- Outsourcing to specialists can cost less than retaining a full-time team
- Specialists are expected to deliver results and can free up an organisation's resources for other core operations

MASTERING THE ADVANCED ANALYTICS PLAYING FIELD

DESCRIPTIVE

Descriptive analytics answers the question “What has happened?” It supplies the answer by analysing the data coming in real-time and historical data for insights on how to approach the future.



The main objective of descriptive analytics is to discover the why, what and how that lay behind the successes or failures in the company’s history.

DIAGNOSTIC

Diagnostic analytics pinpoints the reason why an issue has occurred and can identify previously unseen insight. This type of analytics is characterized by techniques such as drill-down, data discovery, data mining and correlations

PREDICTIVE

Having uncovered the answers, the following phase in utilising the data is predictive analytics. Analysing past data patterns and trends can accurately inform a business about what could happen in the future. This helps in setting realistic goals for the business, effective planning and establishing realistic and attainable expectations.

PRESCRIPTIVE

Now is the time to release the data-backed and data-found factors from the previous steps to create prescriptions for the problems the business faces. Prescriptive analytics delivers the layer that makes manipulating the future that much sounder. It advises on possible outcomes and results in actions that are likely to maximise key business metrics.

It basically uses simulation and optimisation to not only ask, but to also shed a light on directions the business should follow.

EDUCATION AND COMMUNICATION

Collecting the data is only the first brick in the sea wall of containing, controlling and capturing the real value of the data tsunami. The real value begins when the company shares this knowledge across its employee base. This action unleashes the employees' ability to use the powerful information data analytics provides.

The critical element is knowing how to claim it, to uncover new insights, and then present those ideas to promote better business decisions. This allows more people within the company – not just the data scientists – to access, analyse, and collaborate on the important data.

The positive outcome is that company culture, process and people will be harmonised with the transformation journey. Therefore, in an enlightened data analytic business:

- Employees gain greater detailed insights into key aspects of the business
- Employees are empowered to drive better, more confident, data-driven decisions
- Fostering a culture of curiosity, where people are encouraged to experiment with ideas and validate them through data analysis
- The next big business transformational idea can now come from anyone
- Do not overlook the important value of informing the power and delivery of the company's data analytics transformation to key external audiences; customers, suppliers, shareholders and regulators.

BEST DATA ANALYTICS PRACTICES

Advanced analytics can transform existing data into relevant business critical insights.

> Advanced analytics is helping companies across many business sectors solve their complex business problems.

The overwhelming number of trends, patterns, and insights hidden in a company's data are beyond the spectrum of the human eye. A single view of the organisation's operational heartbeat is invaluable to the company's decision makers. What CFO would ignore a single source of truth of actionable insights that would help determine the correct decisions.

A SNAPSHOT OF ACTIONABLE INSIGHTS MIGHT INCLUDE

Predictive sales

Used to create campaigns that are designed to generate higher-quality leads. With data, software systems can analyse points and rank them so sales and marketing teams can create more tailored communication to better target the higher “bang for the buck” leads. This will optimise profits by creating quicker sales cycles and more successful upselling opportunities.

Client profitability

Such analytics can provide a prediction on the profitability of each client individually or within a segment. These analytics help accounting and underwriting to reduce default risk and losses for business and lenders.

Product profitability

In the same way, analytics can predict the profitability of each customer; it can inform product profitability to help businesses make better decisions on inventory. To help maximise the profit on each product, such analysis can help see which products perform the best and at which price point they will continue to do so.

Cash flow

The software can create cash flow statements to monitor a business’ health. The CFO gets a better understanding how the business is operating. If cash is running low in specific periods, financial analysis indicates which appropriate costs to cut and improve product and customer profitability.

Value-driven

Value-driven analysis can offer insight into “what if” situations to inform better decision-making for the future. It will help see what will change and the effect of a decision before implementation.

Shareholder value

Shareholder value analysis assesses a business’ performance by looking at the returns it provides to its shareholders. With this long-term view of decision-making, financial analytics software uses predictive modelling and forecasting to inform immediate decisions for future value.

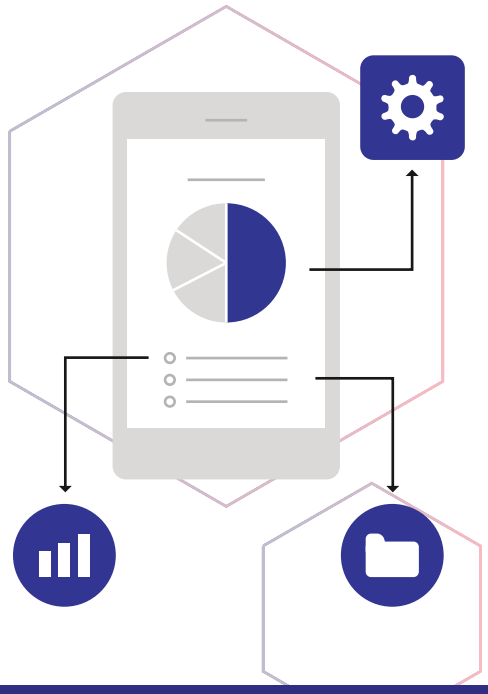
DATA MANAGEMENT AND GOVERNANCE

Despite today’s sophisticated business environment, too often data is incomplete, duplicated, unstructured or outdated. That translates into many organisations struggling to manage, stay compliant, and maintain security over a vital asset. The challenge of demystifying what data business possesses, how it’s classified and how to leverage it becomes an exercise in frustration.

> Imagine a worst-case scenario whereby the data is fed into analytics tools which are not up to scratch. Outcome: the insights the organisation receives may not be reliable.

BUSINESS INTELLIGENCE

Properly harnessed Business Intelligence will lead to better decisions and improve operational efficiencies. As a result, the company will benefit from an increased competitive advantage. The CFO will have a wide variety of tools, applications and methodologies that enable the collection of data from internal systems and external sources.



Analytics will prepare that data for analysis; develop and run queries against that data; and create reports, dashboards and data visualisations to make the analytical results available to corporate decision-makers, as well as operational workers.

TRAPS FOR THE UNWARY

The CFO should avoid the temptation to 'boil the ocean' by trying to bite off too much with the first data analytics engagement. – start small with a targeted business issue, learn as the project moves forward with a plan to ensure the solution can grow as the company grows and will easily adapt to future technologies.

Data analytics implementation is classic change management territory. It demands a systematic approach to what is a transformation of a business' goals, processes

and technologies. The CFO should have a parallel implementation strategy for effecting the change, controlling it and helping the company's employees adapt to the new environment.

WITHOUT SUCH A STRATEGY IN PLACE A NUMBER OF PITFALLS LIE IN WAIT

- Failure to capture potential value of Big Data
- Failure to secure executive sponsorship
- Failure to enthuse, galvanise and empower across the organisation
- Lack of effective education and communication strategies
- Ignoring the absolute need for first class data management
- Lack of a good governance regime undermines this valuable asset

ANALYTICS IN ACTION

GWA GROUP UNLOCKS SUBSTANTIAL BUSINESS BENEFITS WITH ANTARES ENTERPRISE DATA WAREHOUSE

BACKGROUND

GWA Group is a strong performer in the residential and commercial building supplies sector. As a listed ASX 200 company it owns and distributes household name brands including Caroma, Dorf, Fowler, Stylus and Clark as well as leading international brands.

CHALLENGE

With two distinct business divisions, GWA depends on access to reliable and accurate data for performance reporting, business planning and operational decision-making. That data had been stored in a corporate data warehouse. Despite significant investments in support and upgrades there were persistent concerns about data accuracy and performance issues.

SOLUTION

GWA engaged Antares in June 2017 to design and implement a new approach to data management and, in parallel, implement Microsoft Azure's cloud service.

Antares successfully identified and communicated the root causes of issues and developed a clear action plan – a hybrid solution was chosen with a shift to a structured enterprise data warehouse.

This approach enabled GWA to leverage the flexibility of the cloud, minimise overheads and reduce infrastructure costs, whilst retaining the option to use other Microsoft Azure services such as advanced analytics and machine learning in the future.

Antares applied its enterprise data warehouse framework, which is fully automated and meta driven, allowing the Antares team members to immerse themselves in GWA's culture and ensure that every deliverable met requirements and expectations. In addition to technical delivery, Antares focused on governance and security.

BENEFITS

- **Faster data processing:** Previously it took seven hours to process data. Now, despite having more layers and complexity, the same information is available in less than two hours. GWA staff access and analyse data within vastly smaller time windows than was previously possible.

- **Improved data accuracy:** The higher data quality, has enabled improved business planning, management decisions and investment planning.
- **Tangible productivity gains:** Team members no longer wait a day or longer for key data inputs, and there is less reliance on IT support.
- **Low change impact:** The project was delivered on time and on budget, with a highly effective change management strategy in place. The resultant stronger user engagement has eliminated change management issues.

ANTARES FUTURE PROOFS ITS NFP CLIENT'S CRITICAL COMPLIANCE AND REPORTING OBLIGATIONS

BACKGROUND

All Not-For-Profit organisations (NFP's) are subject to the Federal Government's clearer focus on funding and evaluating programs based on outcomes. The obligation is ever present - a stronger evidence basis for the effectiveness of their work. For many NFP's the collection and reporting of meaningful and timely data is essential, but often difficult. This was the reality facing Antares Solutions' client, one of the oldest NFP's in Australia, with a legacy of helping those in the community with great needs.

CHALLENGE

The NFP faced a genuine obstacle in the reporting of a single source of truth across its entire organisation. Decisions makers were unable to respond to customer feedback, identify non-effective business processes and reporting was unnecessarily complicated. Yet the message was clear: irrespective of tool, location or platform, data must be available today, as well as into the future. It must meet the reporting needs demanded by both internal and external stakeholders.

SOLUTION

Antares approached the engagement by working closely with internal stakeholders to develop a Data Warehousing / Business Intelligence system that would meet the organisation's needs and requirements. The key solution elements were:

- Data integration creating a confirmed and consolidated version for all business data entities.
- The Antares ETL Framework to implement corporate data repositories.
- Using the Data Vault architecture to accept and absorb changes in a manageable way.
- Providing a flexible and extensible platform (agility focused) to support future requirements.

BENEFITS

- **Compliance & reporting:** The client now fulfils the Government reporting responsibilities when accepting a contract to provide services and report on those activities.
- **Increased intelligence & analytics:** For the first time, BI and Analytics capabilities are now available to the NFP decision makers.
- **Ease of replication:** Any new projects can be easily implemented by replicating the process and approach.
- **Accelerated implementations:** The technology is in place to help accelerate the implementation phase. Prototyping is possible; feedback is captured and incorporated early in the process. All of this, resulting in a solution that delivers in alignment with the organisation's obligations and requirements.

CONCLUSION

Understanding the real potential of a company's Big Data asset is a critical consideration for today's business leaders. The CFO sits in the best position to capitalise on the value the company's data analytics investment can deliver. The CFO should be in lock step with the CIO in leading the action on that value.

> The CFO role carries an extra responsibility; that of future proofing the company's existence in a world where harnessing Big Data will be an important key success factor.

Approaching the task of analytics implementation, the CFO is entitled to seek help so that the right kind of data analytics solutions is selected that will fit the company's vision - which should include increasing ROI, reducing operational costs and enhancing service quality.

Make an impact to your organisation now!

If you'd like to find out how your organisation can achieve its data analytics goals, reduce costs and make more strategic, data-driven business decisions - Antares is holding a free, virtual workshop "Be a More Data-Driven Organisation." In it, we'll show you how to use data to gain clear foresight, improve operational efficiency, uncover revenue opportunities, strengthen existing customer loyalty, improve organisational responsive, and much more.

CLICK TO REGISTER YOUR INTEREST OR LEARN MORE >