DATA ANALYTICS AND ARTIFICIAL INTELLIGENCE

Smarter business strategies are being powered by intelligent data interpretation and predictive tools.
INDUSTRY TRENDS

A SHIFTING GLOBAL DATA LANDSCAPE
The growing complexity of the data landscape is being driven by rising data sources and the shortening lifespan of those data sources. With the analytical and technological tools being utilised to manage data rapidly changing, speed and adaptability are paramount in staying competitive.

CUSTOMER SERVICE IS BEING DRIVEN BY DATA
The client experience or CX is becoming the number one competitive differentiator in business right now. With an increasing personalisation of the experience depending on insights and intelligence provided by data, industries are seeing huge investments in analytics.

MORE ACCESSIBLE AI FOR SMALL BUSINESSES
Artificial Intelligence is bringing new, previously inaccessible opportunities to SMEs looking to reassess their ROI within their marketing strategy. Affordable AI solutions can now capture data across marketing channels, analyse the numbers and prioritise spending; streamlining costs and generating impactful marketing campaigns.

EYE-WATERING MARKET STATS

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>The value of the global big data analytics market in 2018</td>
<td>$37.34bn</td>
</tr>
<tr>
<td>The global spend on big data analytics in 2019</td>
<td>$180bn</td>
</tr>
<tr>
<td>The expected value of the global big data analytics market by 2027</td>
<td>$105.08bn</td>
</tr>
<tr>
<td>The percentage of firms investing more than US$50 million in big data and AI globally in 2019</td>
<td>33.9%</td>
</tr>
<tr>
<td>The percentage of business professionals and enterprise analytics saying data and analytics are key to their organization’s digital transformation</td>
<td>90%</td>
</tr>
<tr>
<td>Forecasted CAGR of the global data analytics market from 2019 to 2027</td>
<td>12.3%</td>
</tr>
<tr>
<td>The number of firms across all industries in the UK expected to adopt data analytics in 2020</td>
<td>67%</td>
</tr>
</tbody>
</table>

SOURCES (1) researchandmarkets.com (2) statista.com
MARKET INSIGHT

TECHNOLOGICAL ANALYTICS TRENDS THAT ARE DISRUPTING BUSINESS FOR THE BETTER

AUGMENTED ANALYTICS
Through Machine Learning, AA speeds up, digs out and surfaces the most important changes in the business to optimise decision-making.

KEY POINTS:
• Accelerates the data preparation and discovery process.
• Allows non-data centric roles to use data analytics within an organisation.

EXPLAINABLE AI
With applications of AI filtering into often life-critical sectors such as healthcare, explainable AI gives us transparency and trust in system decision-making.

KEY POINTS:
• Reduces regulatory and reputational risks.
• Gives visibility to data scientists and other end-users on the reasoning behind decisions.
• Explainable AI demystifies bias towards specific datasets or bias in selecting a particular problem to solve.

CONTINUOUS INTELLIGENCE
Continuous intelligence uses real-time data to augment human decision-making on an ongoing basis to create responsive intelligence.

KEY POINTS:
• Directly streamlines customer-facing, logistics and B2B processes.
• Is far more efficient than manually interpreting volumes of data and attempting to make live decisions.

AUGMENTED DATA MANAGEMENT
Organisations are adding AI engines into their data management too, automating many of the manual data tuning processes allowing users with less technical skills to be more autonomous when using data.

KEY POINTS:
• Creating automated system responses to errors, issues and alternative interpretation of data.
• The role of the data engineer can focus on more high-value tasks.

SOURCES
(1) gartner.com
DECREASING TECHNOLOGY COSTS

Falling costs of technological investment along with the emergence of open source big data software systems are making data analytics more accessible, driving market growth.

ANALYTICS LEADS TO SIGNIFICANT ROI

Companies embedding data analytics into their decision-making processes are high-performers in their industry – almost four times more likely to generate a significant ROI using analytics.

HIGH GROWTH RATE OF DATA

The CAGR of data volume since 2015 is 42%, evidence of a sharp increase in data production and the potential to harness the power of analytics.

HIGH AFFORDABILITY OF ANALYTICS

A saturated analytics market comprising low cost software and low cost data means increasing affordability for many firms.

WHICH SECTORS ARE SEEING SIGNIFICANT CHANGE?

- Nearly 50% of respondents in a recent survey say data and analytics have significantly changed business practices in sales and marketing – a trend seen across all sectors.

- High tech, natural commodities & energy and healthcare are the sectors seeing the most radical transformation to core business operations in adopting data analytics.

FIG 1.0 McKinsey Analytics

SOURCES (1) accenture.com
COVID-19 – DATA ANALYTICS AS A NAVIGATIONAL TOOL

SHORT-TERM (0-6 MONTHS)
- Leaders are focusing on customer and employee protection in the short term using the problem solving and predictive nature of analytics.
- For many navigating this crisis, data analytics will offer vital support in forecasting demand, identifying supply chain disruptions and aid determining the effectiveness of crisis intervention strategies.

MEDIUM-TERM (6-24 MONTHS)
- In the medium-term, expect to see organisations rapidly embed analytics across all business functions compared to pre COVID-19.
- New, innovative technologies designed for a post-COVID digitalised world could render some historical data useless.

LONG-TERM (2+ YEARS)
- Embedding AI and analytics enterprise-wide will develop a position of strength to tap into the future value of analytics.
- Competitive advantage could be found in terms of building new data pipelines, providing long-term ROI for those implementing the tech early.

KEY ANALYTICS LESSONS FROM THE COVID CRISIS

ANALYTICS MUST BE ALIGNED WITH BUSINESS PRIORITIES
A fully aligned analytics agenda is crucial in optimising the effectiveness of analytics solutions, as proven by those organisations that adjusted their analytics strategies in the face of daily COVID-19 challenges to produce effective solutions across different sectors.

OPERATIONAL TEAMS NEED FULL DECISION-MAKING POWER
More of a cultural change within organisations embracing analytics is the shift from traditional top-down decision making to empowering frontline employees. Crisis response efforts have seen teams authorised and empowered with customer-centric analytics that are proving effective in making agile decisions.

THE NORMALISATION OF DATA IMPERFECTIONS
Consumer behaviour for many firms has changed overnight, with it has the stream of data feeding analytical models. Accepting anomalies and errors in pandemic-related data issues is a part of this crisis, however on the flip side it should prove as a useful test of robustness to many models.

SOURCES (1) mckinsey.com
ARTIFICIAL INTELLIGENCE

THE ‘MACHINE THINKING’ REVOLUTION IN BUSINESS

MACHINE LEARNING
Machine Learning is a way to train a neural network how to do a specific task using algorithms – feed the machine data and allow them to work out the rules by themselves.

NATURAL LANGUAGE PROCESSING
Natural Language Processing aims to bridge the gap between human and computer. It’s deployed to pick out patterns and tonal variances in our use of language, interpret what we are saying and react accordingly.

BIG DATA
The fuel to the AI machine, Big Data enables AI platforms to leverage the volume and variety of information in the digitalised world to make faster and better-informed decisions.

VISUAL AI
A niche area of AI but one that is being increasingly adopted in healthcare, Visual AI involves models adapting to screen images; often medical imagery for signs of tumours, bone damage or infectious disease on the lungs.

HOW DOES AI ADD STRATEGIC VALUE TO A BUSINESS?

AUGMENTING HUMAN INTELLIGENCE
Accurately predicting and forecasting patterns whilst detecting anomalies allows organisations to achieve competitive advantage.

AI AND MACHINE LEARNING CAN OPTIMISE OPERATIONS
In turn reducing inefficiencies and cutting costs.

FINDING VALUE IN DATA AS INTELLECTUAL PROPERTY
Using AI to leverage data from a range of sources to create value that is greater than the sum of its parts, which in turn can create intellectual property.

Leading sectors in AI adoption such as financial services and tech are also expected to significantly increase their spending on AI in the near future.

SOURCE McKinsey Analytics

SOURCES (1) Seven Steps to Implementing Successful AI Projects – Outra; (2) McKinsey Analytics – Analytics Comes of Age
BUSINESS INTELLIGENCE

With a ton of data, we need to gain some insight.

SOURCE DATA

Everything starts with data. With access to more consumer data than ever from transactions, CRM systems and social media; data used in BI varies in source.

EXTRACT, TRANSFORM, LOAD (ETL)

Simply having the data isn’t enough to be used in intelligent ways. Preparing the data for analysis is a huge step; it has to be cleaned, formatted and processed through ETL to ensure the data that critical decisions are relying on is accurate and credible.

DATA WAREHOUSE

The ETL process ends with data being stored in the data warehouse. The point of BI is to gain insight about the organisation as a whole so data from all sources must be combined in one place to get a holistic view.

ONLINE ANALYTICAL PROCESSING (OLAP)

OLAP represents the front end of business intelligence, the user end where OLAP tools and applications present data in various forms based on the intelligence criteria. Data can be pulled out, comparisons made and critical business questions answered.

DASHBOARDS

The dashboard is the key graphical interface that brings the data to life. It organises reports and data visualisations for senior management to utilise in an efficient and effective way, ultimately providing a platform for strategic, data-driven decision-making.
M&A IN DATA ANALYTICS

BUYER APPETITE
Across the data analytics space, buyers are focused on businesses with closed source platforms that improve security and protect the business as well as those with intellectual property and managed service solutions. The UK has become a great hub for innovative analytics companies.

PRIVATE EQUITY DRY POWDER
There continues to be strong demand for advanced data analytics firms from private equity who, despite the economic downturn, remain cash-rich and with high levels of dry powder for investment. Low interest rates and a rapidly growing tech sector make conditions ripe for large returns.

ADDING VALUE THROUGH SIDEWAYS BOLT-ONS
The market has seen a steep rise in buyers for analytics platforms and software both in the form of trade and private equity. In order to leverage their value and returns, as buyers build this analytics foundation they are increasingly looking to bolt-on the latest predictive analytics providers with advancements in AI and machine learning.

GLOBAL M&A IN 2018 AT A GLANCE

- **226** deals completed
- **$74m** average deal size
- **$36m** median deal size
- **1.6x** average revenue valuation multiple
- **9.3x** average EBITDA valuation multiple

REGIONAL BREAKDOWN OF M&A VOLUMES IN 2018

- **143** deals
  - North America
- **65** deals
  - Europe
- **10** deals
  - Asia Pacific
- **8** deals
  - Rest of the World

CROSS-BORDER M&A ACCOUNTED FOR 32% OF ALL DEALS

SOURCES
(1) Equiteq Market Intelligence: Data Analytics Consulting Global M&A Report 2019
CONTACT US

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