Apteco

Top 10 analytics techniques for data-savvy marketers

Mastering data analytics may be easier than you think. Discover how to harness the power of your customer data in this eGuide.

What is data analytics and why is it important?

“Since most of the world’s data is unstructured, an ability to analyse and act on it presents a big opportunity.”

Mikey Shulman, Head of Machine Learning, Kensho

Approximately

64.2 zettabytes

of data were generated globally in 2020

There's no debate: data is abundant in today's digital age, and it's becoming even more of a commodity. According to Statista, approximately 64.2 zettabytes of data were generated globally in 2020, and forecasts show that this figure will exceed 180 zettabytes by 2025.

How much of it is leveraged by organisations, however, is a different subject. Data on its own has no inherent value; the insights we get from it are what truly matter. While marketers understand the need to ask the right questions about their data, finding the most appropriate techniques to convert it into usable information is not always straightforward.

This is where data analytics comes in. Put simply, it's the process of uncovering critical customer insights by interrogating and evaluating data using a range of analytical and statistical techniques, enabling marketers to make more effective decisions and achieve better outcomes. In this eGuide, we'll introduce 10 smart ways you can harness its potential.

6 data types marketers should know about

Not all data is created equal. Whether you're a hands-on marketer or working alongside a team of data analysts, having an awareness of the diverse types of data that exist is crucial.

1. Big data

Big data refers to datasets that are complex to process using traditional means due to their high volume, high velocity, and high variety.

Today, it's one of the most commonly harnessed data types. In 2021, the global big data analytics market was valued at over 240 billion U.S. dollars, with projections indicating a remarkable increase to $655 billion by 2029.

Why it's useful:

Marketers can analyse big data to uncover trends, customer preferences, and market insights. This informs personalised marketing strategies, which in turn helps maximise campaign effectiveness and efficiency.

2. Metadata

Metadata is data that describes other data, providing key contextual information such as file size, creation date, and location. A common example of it is the meta title used for websites.

Why it's useful:

Metadata is essential for efficient data consolidation, organisation, and management. Marketers can use it to categorise and label data for reporting purposes.

3. Real-time data

Data is typically at its most valuable when it's recent and up to date. This is especially true when it comes to specific applications, such as website analytics, e-commerce transactions, and IoT products. Organisations that act on real-time data are more able to swiftly respond to customer needs and make immediate data-informed decisions that drive success.

Why it's useful:

Real-time data allows you to quickly deliver personalised marketing messages and product recommendations based on a prospect's current behaviour or preferences. It also enables you to make instant adjustments to marketing campaigns.

4. Machine data

This type of data is generated by your hardware and software, without human instruction. Call logs created by your smartphone, for example, would be classified as machine data.

Why it's useful:

The objective nature of machine data makes it invaluable in scenarios that require reliable and consistent outputs. This includes marketing automation. By analysing machine data linked to your customers' behavioural patterns, you can set automated triggers to specific actions (e.g. sending follow-up emails).

5. Quantitative data

Quantitative data is sometimes referred to as structured data because it can be processed easily by computers. Some examples include sales figures, email click-through rates, and Net Promoter Score survey responses.

Why it's useful:

Analysing quantitative data can give you answers to descriptive questions, such as 'What are my most popular products?' and 'How many new customers have I gained this month?'.

6. Qualitative data

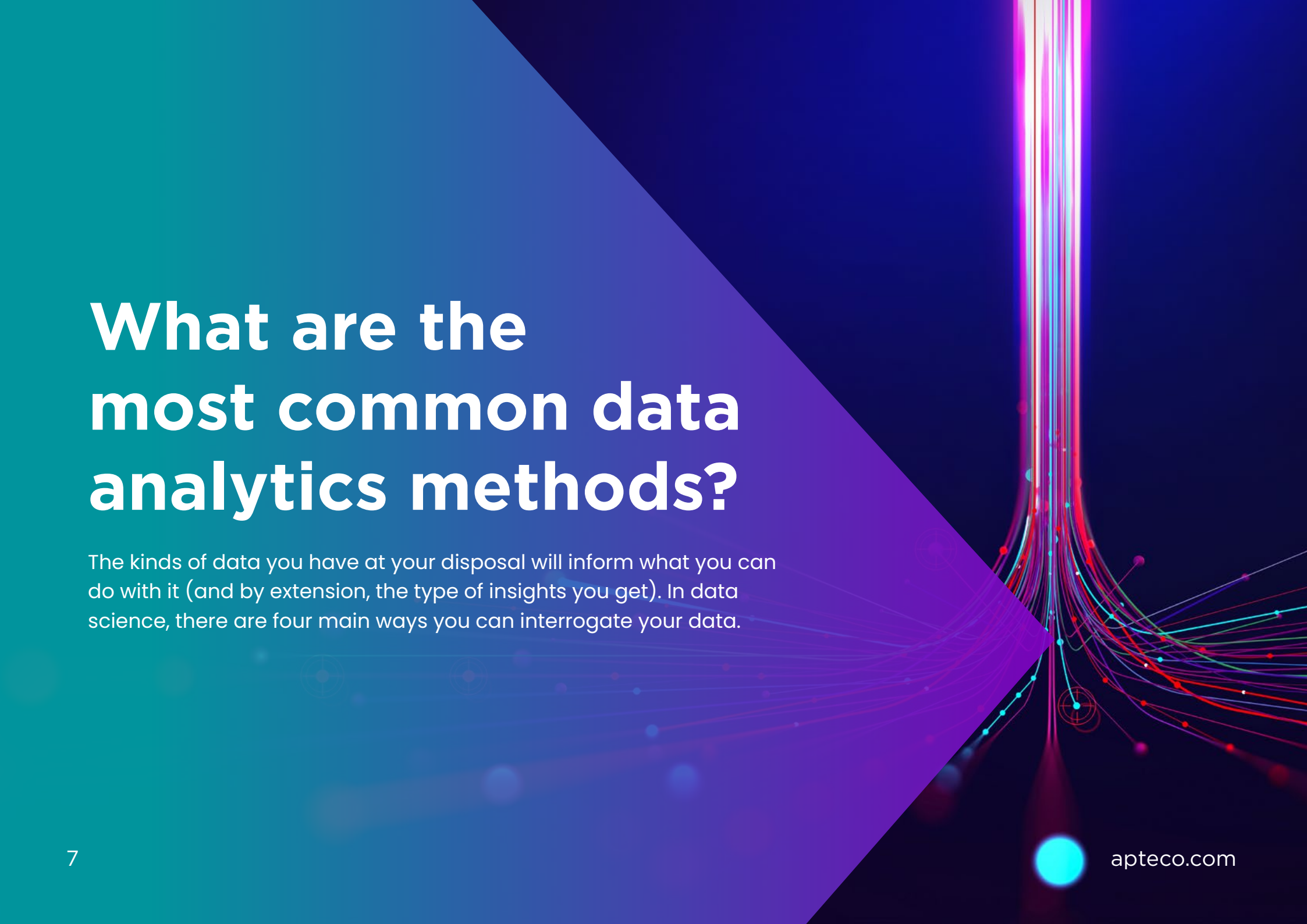
Interview transcripts, images, videos, and social media posts are all forms of qualitative data. Unlike its more structured counterpart, analysing qualitative data requires a degree of subjectivity and interpretation.

Why it's useful:

While qualitative data cannot give generalisable or measurable results, it allows marketers to explore the reasons behind certain marketing phenomena by examining customer motivations, perceptions, and behaviours.

What are the most common data analytics methods?

The kinds of data you have at your disposal will inform what you can do with it (and by extension, the type of insights you get). In data science, there are four main ways you can interrogate your data.



Descriptive analytics

This method involves looking at past data to understand trends and events. For instance, you might analyse your sales data from the last three years and notice a seasonal surge in Christmas jumper sales in October, November, and December. That's descriptive analytics.

Diagnostic analytics

Diagnostic analytics attempts to answer causal questions by delving deeper into why certain events have occurred. If you notice a 50% drop in website traffic, you may be inclined to find out why. Upon closer investigation, you might discover that this change was caused by a recent Google search algorithm update.

Predictive analytics

Predictive analytics is all about making hypotheses about future trends based on historical data. As an example, 'best next offer' campaigns take customer preferences and purchase histories into account to recommend the right products for each customer.

Prescriptive analytics

One step beyond predictive analytics is prescriptive analytics, which revolves around identifying the best ways an organisation can take advantage of predicted outcomes. If you've already hypothesised that there will be a surge in Christmas jumper sales this autumn, you may decide to run A/B tests on some holiday-themed email campaigns before automatically executing the most successful one.

Data analytics: an evolving process

The first step to turning data into insights is to define a clear set of goals and questions. To answer these questions and track performance against these goals, organisations need to collect and retrieve data, analyse it, assess the results, and determine which actions are needed to reach their goals.

6. Evaluate and optimise

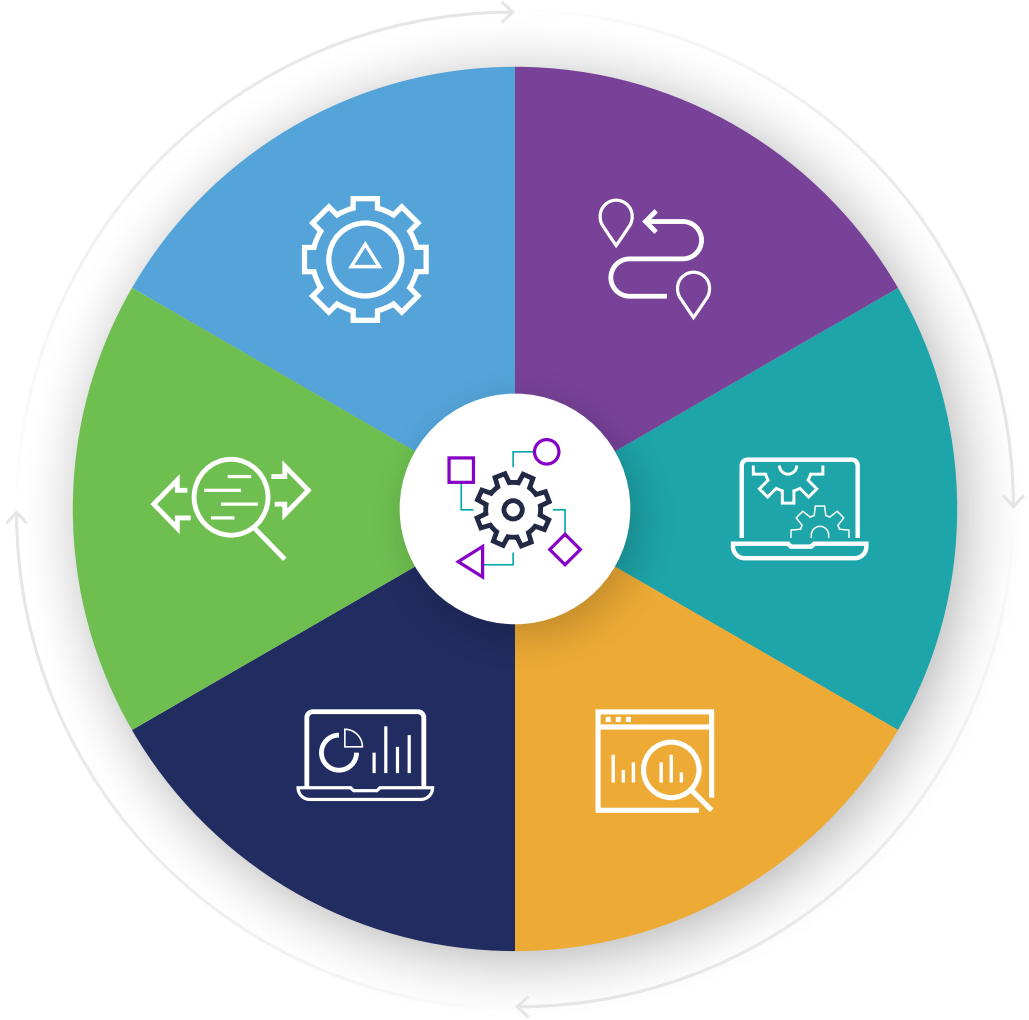
Identify successes and learn from failures, pinpoint opportunities for optimisation and use that insight to answer your next question.

5. Take action

Use your data findings to inform, target and action your marketing campaigns.

4. Visualise your results

Make your findings easy to share and interpret with charts, graphs, and other visual elements.



1. Define your objectives

Start with the key marketing question(s) you need answered to determine the purpose for analysing your data and to identify your goal.

2. Collect, clean and enhance

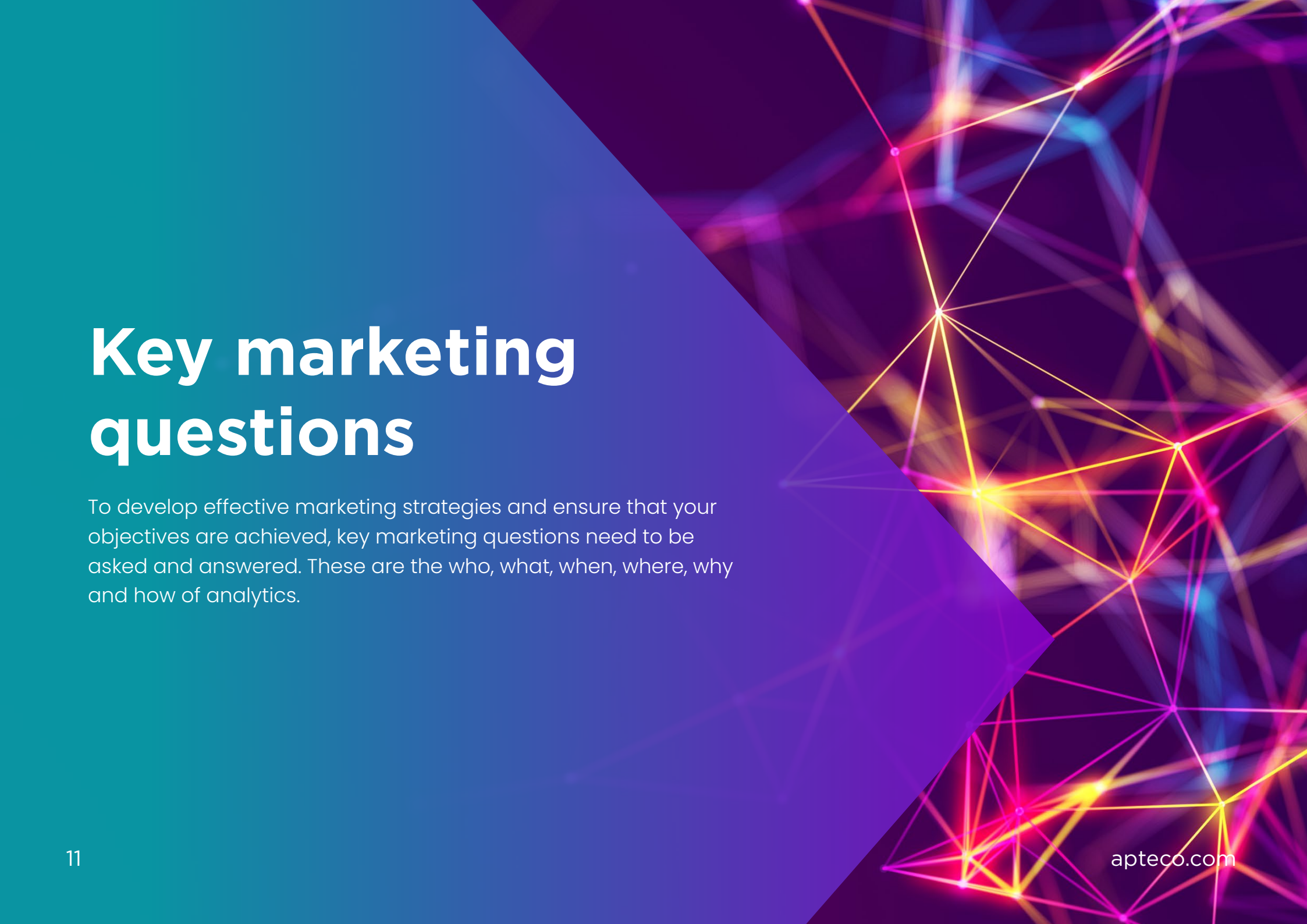
Collect and retrieve the necessary data, remove duplicates or other inconsistencies that could skew your results, and enhance with external data sources for more depth.

3. Analyse

Interrogate your data using the most suitable data analytics method and technique.

Key marketing questions

To develop effective marketing strategies and ensure that your objectives are achieved, key marketing questions need to be asked and answered. These are the who, what, when, where, why and how of analytics.



Here are a few examples of those key questions:

10 essential customer data analytics techniques

In this section, we'll provide an overview of some of the most valuable techniques, discuss what questions they will help you to answer and break down how each one works in practical terms – along with tips on what to look for in a data analytics tool.

Technique #1:

Profiling

The main purpose of profiling is to predict customer behaviours and it can provide critical insights into the characteristics and needs of your customers. It can help you acquire new customers by helping you analyse your current customer base and discover new possibilities for expansion. Profiling can also help you recognise which customers are more likely to lapse, allowing you to act quickly to re-engage them.

Key marketing questions:

How can I increase engagement and my campaign response rates?

Who are my best customers and how can I find more like them?

What products can I cross and upsell to my existing customers?

How do I recognise customers who are likely to lapse?

How to get started:

- Build an analysis group of customers who have displayed the desired (or undesired) behaviours
- Create a base selection or use your entire database for comparison against the analysis group
- Decide which dimensions/will give you the most insight
- Interpret your results to see which characteristics will give you the highest degree of certainty
- Consider your findings carefully. For example, some results may be skewed by bulk purchases, which could impact the accuracy

Look for a tool that offers:

- The inclusion of Z-scores which let you know how reliable your prediction really is
- The ability to combine your variables into categories. E.g. combine into age groups rather than using 'year of birth'
- The option to apply profiling scores to every record so insights can be utilised when selecting data for campaigns

Technique #2:

Cluster analysis

Cluster analysis is a form of descriptive analysis used to identify sub-groups who share common characteristics. It seeks to uncover and identify patterns, connections, and homogeneous groups ('clusters') within a dataset.

There are all sorts of different applications of clustering, including both tactical and strategic; for example classifying customers as high-value, average-value, active or lapsed.

In a retail store, clustering using demographical, behavioural, or attitudinal data can inform the organisational operation. If a particular store shows a larger clustering of young, affluent, and upwardly mobile customers this could influence the products stocked, internal promotions, brand positioning, store layout and so on.

Questions you may ask:

Who are my best customers and how can I find more like them?

Do I have groups of customers with similar characteristics and purchasing habits?

How do I make sure my marketing communications are personal and relevant?

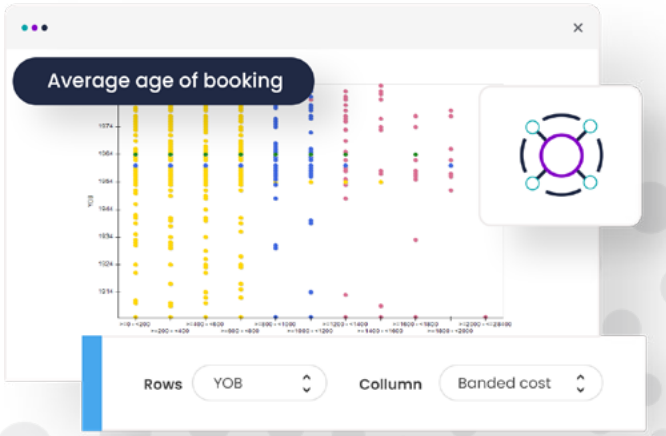
What products can I cross and upsell to my existing customers?

How to get started:

- Create a selection of records to analyse or apply to the entire database
- Choose the variables (attributes) you want to use for clustering. These variables may include demographics, purchase history, or any other relevant data points
- Determine the number of clusters to generate
- Having created a cluster model, you may want to use it to build a predictive model such as a profile, decision tree or segmentation

Look for a tool that offers:

- Intuitive drag-and-drop features
- Integration with predictive modelling for more precise targeting
- Advanced clustering options – including multi-stage, divisive, and agglomerative clustering



Technique #3:

Decision trees

Decision trees are visual tools that enable you to take a selection of customers that you're interested in and identify their typical characteristics. They compare one group of records with another to identify the characteristics that differentiate them and they're especially valuable for establishing rules that guide marketing decisions. These rules can be used to create targeted selections for your campaigns.

Questions you may ask:

Who are my best customers and how can I find more like them?

How do I identify the most likely responders when planning my campaign?

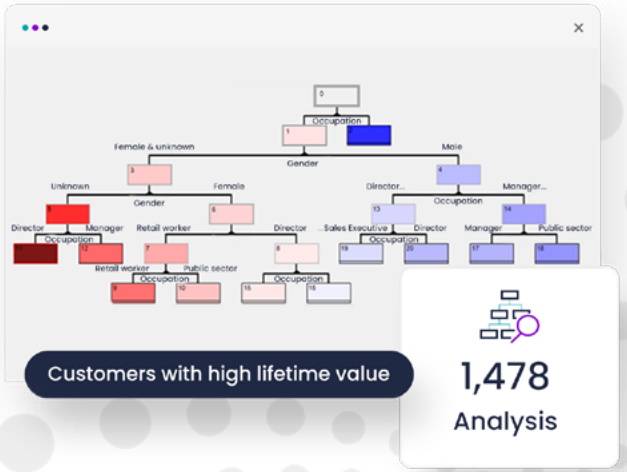
How can I increase engagement?

How to get started:

- Decide on the variables to use to create the initial branches of your decision tree
- Use default settings to identify and review how predictive the nodes are
- ‘Prune’ back your tree if certain branches don’t provide any significant value and/or grow branches that look like they might become insightful

Look for a tool that offers:

- Options for both ‘growing’ and ‘pruning’ decision trees
- User-friendly interface to view and adapt models
- A modelling report to help you compare and evaluate multiple models to determine which is best and most predictive



Technique #4:

Behavioural modelling

Behavioural modelling takes data analysis to the next level by allowing you to map journeys based on transactions and communications, to better understand patterns of behaviour, and to use this insight to predict future behaviour by combining the two fields – customer journey analytics and predictive modelling. Behavioural modelling helps to explain the factors involved in customer decision-making, so you can better predict what they are most likely to do in the future.

Questions you may ask:

What is my customer's typical journey?

How many interactions do they have before they purchase?

Does it matter how long it has been since their previous purchase?

Are there combinations of products customers are more likely to purchase?

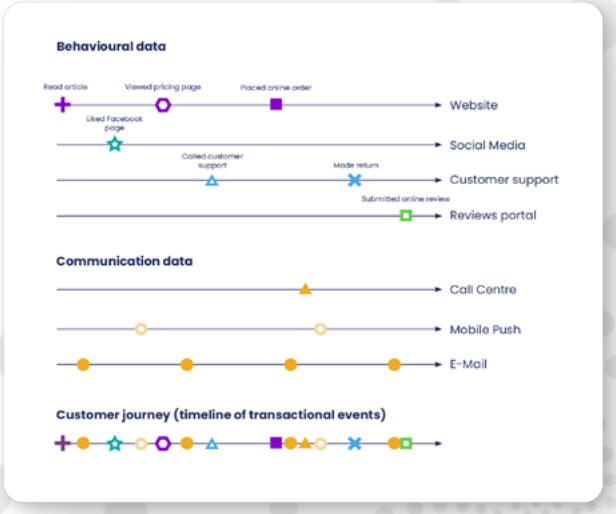
Are my predictions upheld when tested against known behaviours?

How to get started:

- Identify behavioural features within your past data. This can be split into three categories:
  1. Summary measures (simple metrics such as average spend and basket abandonment rate)
  2. Dynamic trends (such as a reduction in web visits or an increased average linger time)
  3. Sequence of events (a combination of factors that lead up to a behavioural outcome)
- Lookout for these patterns in your customers' current behaviour
- Predict their next steps by assigning a score to people based on what they are doing now

Look for a tool that offers:

- The ability to run the model on multiple historical dates for evaluation and application
- Options for fixed point-in-time modelling or event-driven modelling
- Integration with programming languages such as Python and R for advanced analysis techniques



Technique #5:

Segmentation

Your customers are on a journey with your business and their preferences evolve with time. Some will undoubtedly be loyal steady customers, and some may be on a journey away from you, but the majority will be continually migrating between segments. Knowledge of the characteristics of these groups, how they are changing and the journeys they are making is extremely valuable in trying to maximise return.

Segmentation is one of the most important ways you can manage this complexity and deliver the right messages to the right people, at the right time. Segmentation is the process of placing customers into manageable groups that share common characteristics – groups that are meaningful to your business and marketing strategy.

Questions you may ask:

How do my customers move within marketing segments over time?

How can I increase engagement and my campaign response rates?

How good is my business at retaining customers?

When are customers most likely to lapse?

How to get started:

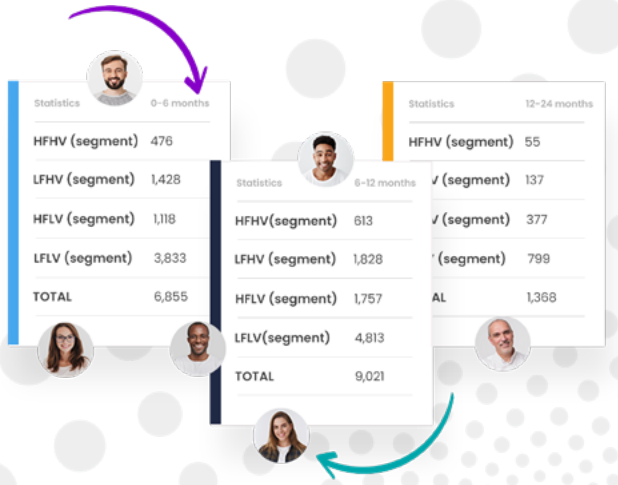
- Build segments that are meaningful to your organisation using demographic, location, psychographic or behavioural variables
- Choose to examine your customers based on a fixed point in time or a reference point that is specific to the individual
- Run and review your segmentation reports

Did you know?

Open rates for segmented email campaigns are 14.31% higher compared with non-segmented campaigns.

Look for a tool that offers:

- The ability to examine customer segments at a point in time and how they evolve over time
- Built-in segmentation reports such as migration, journeys, and retention reports
- Seamless data export options for swift execution in digital and offline marketing channels



Technique #6:

Geoanalysis

Geographic location can significantly influence customer preferences, and people living in the same area often demonstrate similar buying behaviours. So, another way you can sharpen the relevance of your marketing messages is to make your product or discount offers specific to where customers live. To achieve this, you can perform geoanalysis by combining customer data with spatial information. This allows you to optimise sales areas and personalise content and messaging.

Understanding the geographical distribution of your customers and prospects can also give marketers a fresh perspective, increasing insight of their marketplace, highlighting areas of untapped potential, and facilitating campaign planning and execution.

Questions you may ask:

Where are my core customers and prospects located?

Who should be invited to my latest event?

What market sectors/ industries/regions have the most potential?

Did you know?

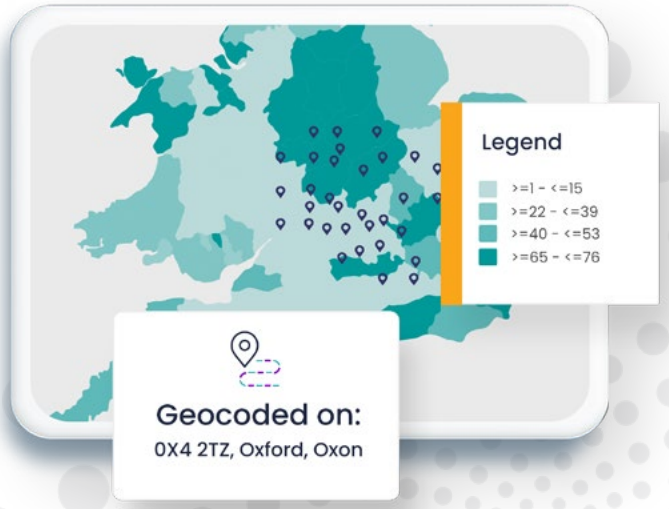
In a 2019 survey, almost 9 in 10 marketers said that location-based advertising and marketing resulted in higher sales.

How to get started:

- Create a selection of your active customers or prospects
- Display the selection on a shaded map to see the distribution of your customers or prospects around the world
- Create drive-time selections to find prospects who live within a number of minutes or the distance it takes to drive, walk, or take public transport from a given point

Look for a tool that offers:

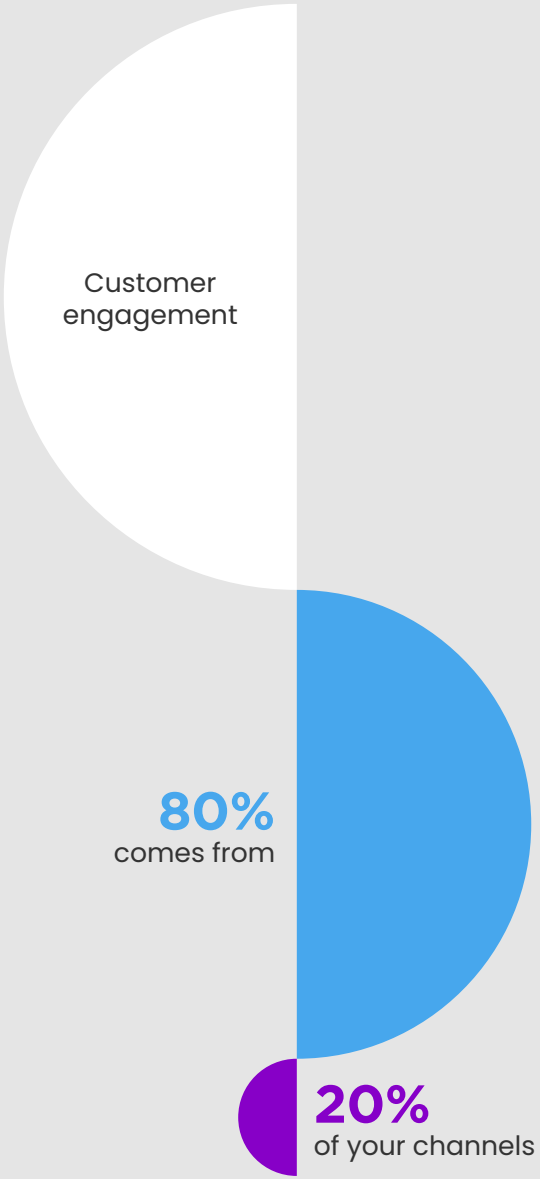
- Various map wizards for geocoding, territories, and drive-time analysis
- Street level mapping for all regions in the world
- Interactive visualisations that allow for drilling down into deeper analysis of geographic data



Technique #7:

Pareto analysis

The Pareto principle states that roughly 80% of a project's results come from 20% of the work. In marketing, it can refer to the idea that only a small percentage of customers contribute to the vast majority of your sales or that 80% of your engagement comes from 20% of your channels. The Pareto chart is a very powerful tool that can help to show the relative importance of problems and help you focus on what is most significant.



Questions you may ask:

Who are my best customers?

How do I focus on the most important customers?

What market sectors/ industries/regions have the most potential?

How do I reach my customers and prospects?

How to get started:

- Decide on the proportion of customers you want to analyse. For example, you might want to know how much turnover is generated by the top 20% of your customers
- Decide what categories you will use to group items
- Decide what period of time the Pareto chart will cover: One full day/a week/a month
- Arrange your customers in descending order based on their contribution percentages

Look for a tool that offers:

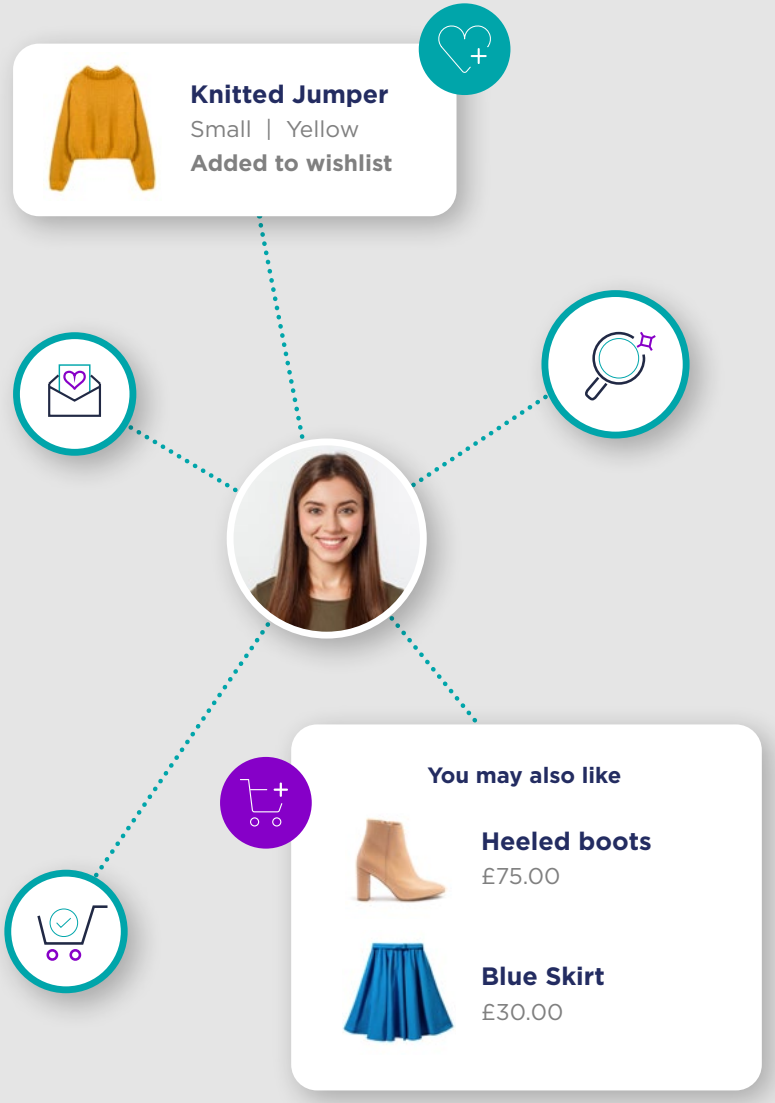
- Interactive dashboards with easy-to-use Pareto functionality
- Access to transactional and customer data

Technique #8:

Best Next Offer

Built-in machine learning and advanced modelling techniques combine behavioural and spend analysis to calculate the best next products to tempt customers, as well as providing cross and upselling opportunities.

An effective way for marketers to move from generic targeting to personalised messaging is to analyse past purchase histories, identify preferred product combinations, and evaluate the probability of future purchases for each customer. Best next offer analysis enables you to customise your messaging and include relevant product recommendations, which ultimately boosts conversions and engagement.



Questions you may ask:

What products can I cross and upsell to my existing customers?

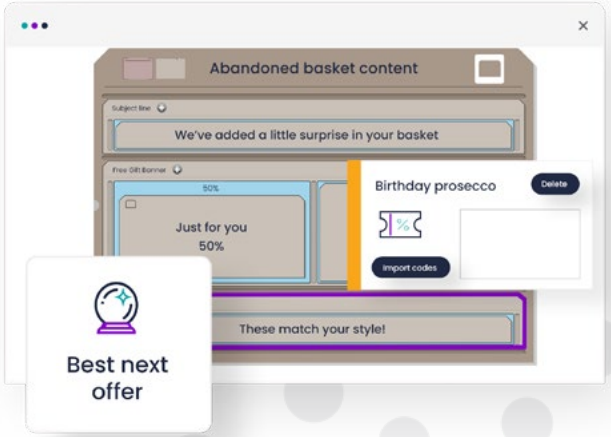
How can I identify customers' wishes before they arise?

How to get started:

- Access your customer transaction history
- Apply popularity and propensity weightings to determine which product combinations are most popular, and what tendencies individual customers demonstrate
- Your data analytics solution will crunch through the data for you, showing you associations between your products, services and what is commonly bought together
- Save 'Best Next Offer' as a variable for creating audience selections
- Take into account additional aspects such as seasonal effects, current inventory levels, and profit margin

Look for a tool that offers:

- Built-in AI, wizards and machine learning
- Advanced predictive modelling techniques



Technique #9:

RFM/RFV analysis

While some customers will be loyal to your brand, many will fall into the category of casual customers. In these situations, it might not be sufficient to select only on the presence or absence of data. RFM/RFV analysis gives you a way to accurately divide your customer base into distinct segments based on recency, frequency, monetary/value of transactions, enabling you to refine your marketing messages even more effectively.

Questions you may ask:

Who are my top-performing customers?

How can I turn casual customers into regular loyal advocates?

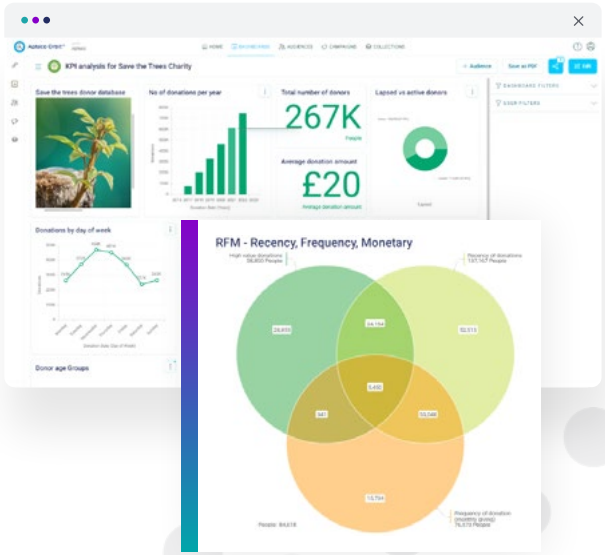
How do I increase sales with more effective targeting?

How to get started:

- Create variables for three factors:
  - **Recency:** How long ago was the last purchase?
  - **Frequency:** In general, how often was a purchase made?
  - **Monetary:** How much revenue was generated?
- Plot the results on a Venn diagram. The intersection of all three segments represents your top donors
- Use this information to create a new audience for your campaign

Look for a tool that offers:

- Interactive Venn functionality
- RFM/RFV data aggregation tools



Technique #10:

Basket/ transaction analysis

Most shoppers usually purchase more than one product at a time. Retailers and e-commerce marketers can analyse shopping baskets and transaction histories to identify trends and predict future purchases. This can help them offer tailored product suggestions, improve their cross-selling and upselling tactics, and create a better shopping experience for customers.

Questions you may ask:

Which products are most often bought together?

What products can I cross and upsell to my existing customers?

How can I increase sales and my campaign response rates?

How to get started:

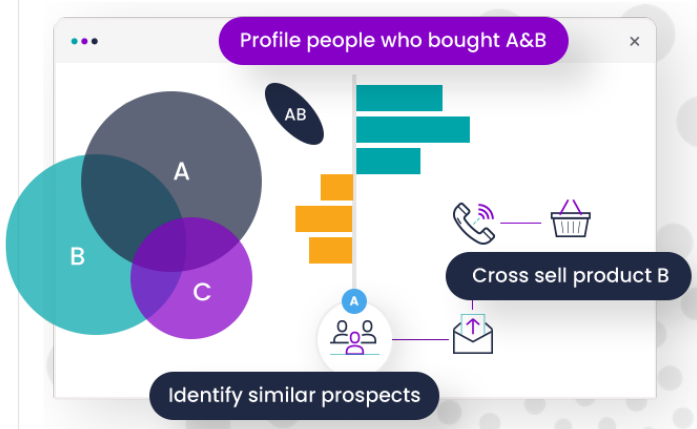
- Collect your customers' transactional data, including items bought, transaction time, and relevant details
- Analyse the data to discover frequently co-purchased items, association probabilities, and customer preferences
- Use these insights for decisions such as product recommendations, store layout improvements, and targeted marketing

Look for a tool that offers:

- Advanced selection capabilities easily accessed using wizards and cross cubes

Did you know?

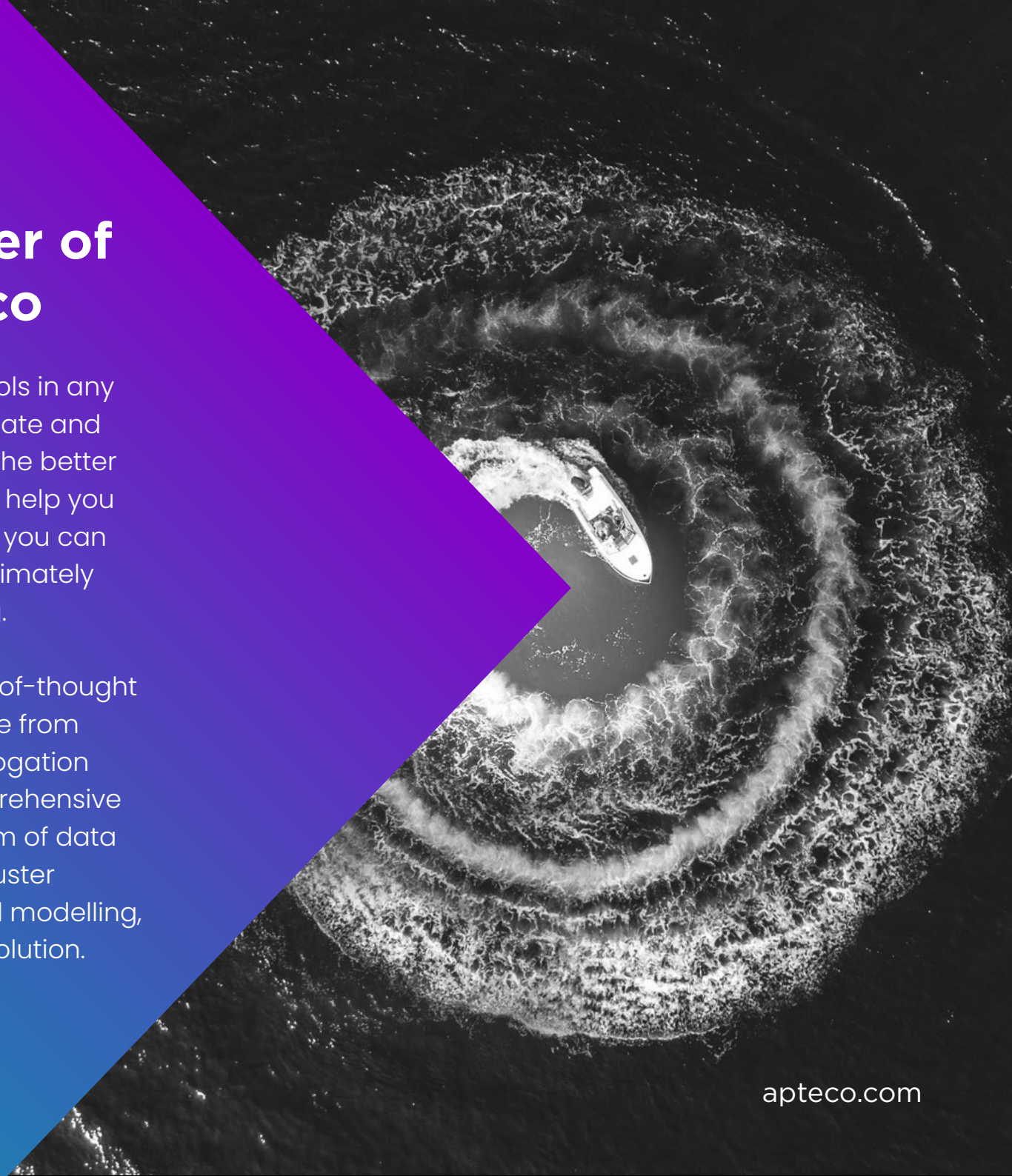
On average, e-commerce users purchase approximately three products per order.



Unleash the full power of your data with Apteco

Data analytics techniques are essential tools in any marketer's armoury. The more you investigate and analyse, the more insights you'll gain and the better your campaigns will perform. Our aim is to help you harness the power of these techniques, so you can make better data-driven decisions and ultimately achieve greater success in your marketing.

Apteco offers data-savvy marketers train-of-thought analysis, where you are easily able to move from one tool to another, deepening your interrogation and unearthing hidden insights. Our comprehensive software encompasses the entire spectrum of data analytics, from descriptive analytics like cluster analysis to predictive analysis, behavioural modelling, and best next offer, all in one convenient solution.



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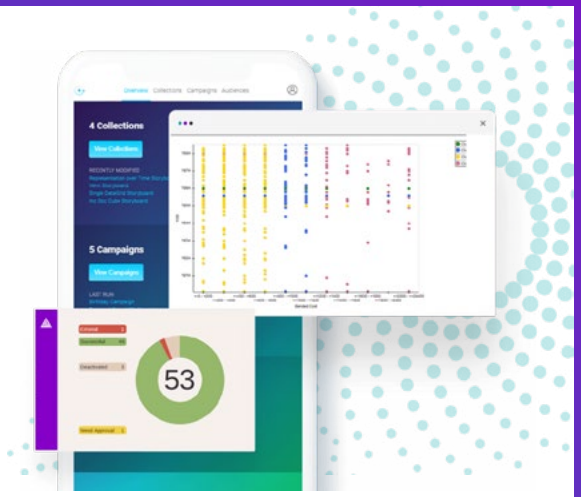

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