AN INTRODUCTION TO

PREDICTIVE ANALYTICS

BEST PRACTICE GUIDE



B2B Marketing

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Introduction

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Earlier this year we produced our first ever piece of research looking specifically at the data-related skills that are holding marketers back. And we discovered predictive analytics is the main thing marketers and their teams are really struggling with right now.

This guide has been put together specifically to help you, as a B2B marketer, understand what predictive analytics is, what it's capable of, whether or not it's right for you and the first steps to take if you do decide to implement it.

As we noted in our analysis, while the adoption of predictive analytics is likely to require a certain level of technological investment (different options are outlined later on in this guide), it also necessitates a change in mindset. Marketers are familiar with using data to report on things that have already happened, but using data to make future predictions is quite a different task.

So, prepare to think differently about data and what it's capable of, and you'll already be on the right path.



Glen Westlake

CEO and
co-founder
BrightTarget

I. What is predictive analytics?

» The first step to predicting a customer's behaviour is understanding what their needs are and what their response will be to your marketing actions «

Predictive analytics, in a nutshell, is understanding your customers' future behaviours and how they are likely to respond to your actions. Once you can predict how a customer is likely to behave, you can then start to intelligently target your actions in order to influence that customer more positively and efficiently.

The first step to predicting a customer's behaviour is understanding what their needs are and what their response will be to your marketing actions. Then you can start to implement the actions that will get you the best results. Bridging the gap between marketing actions and data analysis is the first obstacle for most large B2B businesses when it comes to predictive analytics, as the functions belong within departments with very different cultures.

In short, the aim of predictive analysis is to identify and use insightful information to guide actions that will influence your customers' behaviours in a more predictable manner. There is no need to get sucked into the technical details of data science, complex models and algorithms. You just want the information so you can do better marketing and target your budget spend most effectively.

» The first validation of any good predictive analytics output is that it confirms gut feel «

Is this too good to be true?

When you consider what the machine is doing, it's actually nothing radically new. In fact, marketing professionals do this type of analysis all the time. It's about interpreting lots of customer signals, then determining the best action for you to guide the customer to do what you want them to do. In doing this, you assess:

- Customer needs
- How well your solutions fit their needs
- The future value the customer brings to you.

Along with other relevant factors, this allows you to put individual campaigns together to win business. A lot of experience and gut feel is used, and in fact the first validation of any good predictive analytics output is that it confirms gut feel. The basis of gut feel is rarely wrong, it is often just too vague.

So, humans are already doing much of this, but they have limited capacity to analyse all the information. In addition, modern buyers and larger organisations often give out too many signals to individually assess, and in most large B2B companies with lots of products and customers, this activity is far too complex for a human to analyse. **This is where machine learning and predictive analytics comes in.** Machine learning, with complex statistical analysis, processes billions of combinations to find the best fit of products for each customer.

Machine learning uses all your historical sales and customer interaction data to train itself to predict future behaviour. This creates lots of rules that are then automatically tested to measure the accuracy of the predictions. The machine trains and tests itself until the accuracy is sufficient to be used in future predictions.

II. It's all about delivering actionable insights

Actionable insights provide the intelligence about a customer in context, so that marketing can do the right thing. But this is not just historic sales information. The best way to demonstrate this is with some real-world marketing examples, seen without machine learning:

For retention

Customer: Big Widgets
Potential customer lifetime value: £25,000
Eighty per cent probability it will stop trading with you this year, because:

- Not made a purchase in 43 days
- Purchased fewer than 32 products so far this year
- Not responded to any recent sales promotions.

» **Action:** This insight should be passed to sales for them to personally manage the account and regain the customer's loyalty.

For product upsell

Customer: Big Widgets
Sixty-seven per cent likelihood it will need steel drums this year, and this additional purchase typically contributes **£5362 of value** each year
Best message to influence: product safety, followed by value for money.

» **Action:** This actionable insight immediately tells marketing what product it needs to promote, how much it should consider investing and what message content it should consider – very powerful.

For lead targeting

Customer: Big Widgets
Seventy-eight per cent likely to convert to a paying customer
Customer lifetime value of £45,000, because:

- Legal professional services sector
- Employs more than 500 people
- High level of engagement with website and content
- Medium level of engagement with acquisition email campaign.

» **Action:** Make a multichannel, time-limited new customer promotion with a discount value of 25 per cent of the customer lifetime value via email, the website the next time it visits and followed with a call.

» The amount of intelligence that can be provided is dependent on the amount of information gathered «

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If you apply machine learning to each of these examples:

Retention

The machine learns by looking at who actually left you (or stopped transacting for period). This is set as the outcome, and the machine determines the factors that most influenced this outcome, based on the hundreds of input variables it considers.

Upsell

The machine looks at product combinations other similar companies typically purchase and finds the gaps in your customer base to suggest where to promote specific products.

Lead scoring

By looking at your existing customers, the machine learns what a good customer looks like and what activities lead to a customer converting. It can apply this learning to any new prospect data you have and score it appropriately.

In principle, this is not that complex: you are learning from the past and applying this knowledge to the future. Exactly as any human would do, but the machine does not forget, is not prejudiced and processes much more data, much more quickly.

Of course, the amount of intelligence that can be provided is dependent on the amount of information gathered. But the amount of information available externally is amazing. This, when combined with existing internal sales patterns, can provide much better results in terms of lead scoring or customer acquisition.

III. Will predictive analytics work for me?

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Firstly, you need enough customer outcomes in your data that can be used to teach the machine. Typically; you need to be looking for at least 500 outcomes for the machine to be able to learn accurately.

Predicting which customers are likely to leave

You will need:

- **At least 500 customers** that have left you within the training data set.

Assuming you have two years of data – one year for training and one year for testing – and your churn rate is 10 per cent per annum, then you would need to have:

- **5000 active customers,** of which 10 per cent would leave…
- …giving you **500 outcomes** in that year to analyse and learn from.

Learning what drives prospects to turn into new customers

You will need:

- At least **500 new customers** in the year for the machine to learn from.

Typical retention models can predict around 90 out of 100 leavers, enabling marketing to target retention spend much more effectively.

Predictive analytics is also hugely useful for product recommendations (upsell and cross-sell). Again, the machine will look at the different products purchased by different types of customers, and learn the patterns of products purchased together. These predictive models can then be used to recommend the most needed product for each type of customer, where type of customer is determined using intelligent customer segmentation (micro-segmentation).

IV. How can I implement predictive analytics?

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There are several ways you can deploy predictive insights in your organisation:

DIY

Purchase the predictive tools, prepare your own data and build your own statistical models.

Benefit: It will provide the most bespoke and flexible solution to fit your business.

Drawback: It's slower and more expensive than alternative approaches. This approach will often need dedicated data experts and data scientists – these are fairly rare people who can statistically process and analyse data to solve real-world business problems. Only use this method if you need very bespoke analysis and predictive applications.

Outsourced bespoke

Internal implementation, but done by an external company.

Benefits: This is a bespoke solution. It's cheaper than doing it internally, due to cost of skilled workers in this space.

Drawbacks: It can be relatively slow to set up, and flexibility will depend on support contract in place with supplier.

Note: The nature of machine learning is that it needs to continually learn and be trained, so continual monitoring and support will be necessary.

Outsource then bring inhouse

A combination of the above, but you would bring the support and training inhouse once it has been implemented.

Drawback: There is a risk of limited internal capability to take the solution forwards.

» Outsourcing software as a service is the quickest and cheapest route to getting good actionable insight «

Embed within your existing marketing platforms

Implement m arketing automation (MA) tools that have elements of predictive built into them.

Benefit: It's a good starting point if you already have the MA tools in place.

Drawback: The current offering of tools in this space is expensive, with limited predictive capability. These tools will only do predictions using the data within their tool, which often excludes historic sales data.

Outsource software as a service (the cloud)

Send your data out to a third-party platform that has all the models pre-built.

Benefits: It's the quickest and cheapest route to getting good actionable insight. The cloud means much larger capacity to process data, and better providers will already have connectors to many of the most popular cloud-based marketing tools – meaning all data movements are contained in the cloud, with no need for internal data processing. Good suppliers will also be monitoring, tuning and adding new models to these solutions, so as part of the subscription you get a 'living' solution that continues to support your business as you mature in this space.

Drawback: You need to be able to share data externally and trust the supplier can model your data to a level of accuracy to justify the business case.

V. How to determine the scope of predictive you need

Before embarking on the predictive journey, you need to consider the business case and where additional value can be gained or saved. Typically the most popular and profitable areas to start with include:

1. Retention

How much would be saved if you could keep more customers? The key decision you have to make here is the percentage of customers at risk you can actually keep via better engagement marketing. If all your lost customers are going bust, moving to a more local supplier or changing over to a better competitor's product, then your marketing is unlikely to have much impact on retaining these accounts.

2. Re-activation

Do you have a large set of old customers that you could re-engage with? Again, a key metric here is the conversion rate. Have you brought out a new product that could entice them back? Based on the potential lifetime value of the accounts, what promotional discount could you offer?

3. Upsell

How much of your customer base could you sell more, or new, services and products to? The key marketing question here is, given the knowledge of who needs what, what is the percentage penetration you could obtain?

4. Customer acquisition

Could you target your resources more effectively on more valuable leads that you're more likely to close? This will increase your sales funnel efficiency with better conversion rates across key stages, and increase value.

5. Data profiling

Could you buy data more intelligently, saving marketing spend and increasing conversion rates?

6. Targeted marketing spend

By predicting who is most likely to respond to a campaign, can you reduce campaign spend by only targeting those likely to respond? A good example of this is with retention – don't make offers to customers who are unlikely to leave.

How do these solutions map to these activities?

Many solutions currently available have evolved from some previous background. This means they can be classified according to the point of the customer lifecycle they address, ranging from the top of the funnel to customer service and retention.

There are three key stages in the customer lifecycle that the pre-built predictive tools address. Obviously if you are building your own, you will need to scope which models you want first. These are:

1. Funnel management:

- Prospect
- Lead
- Opportunity Scoring

2. Price modelling

3. Customer life cycle management:

- Segmentation
- Upsell
- Retention

Pricing is the odd one out here as it requires competitive knowledge and a more complex understanding of the pricing mechanisms, which often fall outside the scope of the marketing department.

Conclusion

As companies collect more data about their prospects and customers, and the options to message and target them become more flexible, it is essential to have a machine to process the data and guide humans where to target their valuable resources. The machine takes away the complex data gathering and analysis and delivers easy to understand 'actionable insights' to people who need to understand the emotions and complex human relationships we have with our customers.

For those marketers a bit fearful of the machine, I think the complex B2B space is much safer than B2C. The machine will only provide logical actionable insights based upon all its input data. It still needs a human to validate these insights and turn them into messaging and campaigns that will influence the customer. For ecommerce B2B and volume B2C, this is not so true, because we capture more data from the digital interactions and close deals online with little human intervention.

Key takeaways

- Predictive analytics is nothing to be afraid of. It's simple machine learning that provides probabilistic insight to guide sales and marketing professionals. When done right it will take away much of the pain of data gathering and analysis, freeing marketers to do marketing and not data leg work.
- The guidance provided by the machine helps improve the alignment of the sales offer to the customer needs, increasing sales productivity and, more importantly, meeting customer needs better, thus increasing customer satisfaction and loyalty. Everyone wins.
- The self-testing approach of machine learning means accuracy can be monitored by marketers, so they can control how much power they delegate to the insight given. This provides some reassurance around how confident you can be about predictive analytics. Over time, the actual results will prove the predictions, which, when managed correctly, should continue to learn and improve, and demonstrate clear ROI.
- Even with the best insight, humans are still required to negotiate and manage the customer relationship.



Author biography

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Glen Westlake is the CEO and co-founder of BrightTarget. With 25 years' experience in data-driven sales, marketing and strategic consultancy, his technical and business experience enables him to understand how technology can revolutionise sales and marketing performance. Glen founded a specialist consultancy that he grew successfully over the past 15 years, before leaving in 2015 to launch BrightTarget. His new vision is simple: to use predictive analytics and machine learning to provide simple and actionable insights to sales and marketing professionals.

About B2B Marketing



B2B Marketing

B2B Marketing is the comprehensive information resource for B2B marketers. Its mission is to provide practitioners with the information they need to perform better and achieve more, whatever sector of the B2B space they are operating in.

Launched in 2004 as *B2B Marketing* magazine, it has since evolved into a multi-faceted resource, delivering a broad range of content in a variety of different forms and formats.

Its key products are:

- Online community
- Magazine
- Awards
- Research and reports
- Training
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For more information on any of these products or services go to b2bmarketing.net or call +44 (0)20 7014 4920

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