Mariner CAPITAL ADVISORS

HOW TO INCREASE

YOUR COMPANY'S VALUE WITH PREDICTIVE ANALYTICS

Predictive analytics has long been used in a variety of applications such as forecasting the weather, assessing insurance risk, and credit scoring. In the late 1990s, large companies like Google and Amazon began using predictive analytics to enhance value and gain a competitive advantage. Thanks to advances in computer technology, the advent of 'Big Data', and the introduction of cost-effective software solutions, predictive analytics is becoming widely adopted by companies of all sizes.

"Business owners have traditionally relied heavily, if not solely, on financial statements and management reports to inform their decisions."

In this article, we explain predictive analytics in more detail and discuss specific ways that business owners can use it to drive growth and enhance the value of their companies.

What is Predictive Analytics?

Predictive analytics is the process of analyzing historical and current data and applying advanced statistical methods and analytical tools to make reliable predictions about the future. In a business context, predictive analytics often involves the creation of a predictive model used to exploit patterns in historical financial information, customer data, and other third-party data sources to identify risks and opportunities.

In most applications, predictive analytics involves first identifying a business problem and identifying what kind of data is needed to help solve the issue. Next, data must be collected and prepared for analysis. Once the data is prepared, the analyst will use a variety of data mining, machine learning, and statistical techniques to uncover numerical patterns and relationships between variables. This information is then used to create a model that can be used to make reliable predictions.

It's important to note that predictive analytics is not a standalone decision-making tool that provides a direct answer your business challenges. Rather, it's a tool meant to supplement your experience and intuition and improve the quality of your decisions. Predictive analytics transforms data into actionable insights on why things are happening and provides a probable forecast of the future. Often, it can help uncover hidden opportunities or unexpected risks. These insights can help you identify what decisions need to be made and what steps should be taken to achieve a desirable outcome. Ultimately, it allows business owners to make better, more informed decisions with confidence.

The Business Case for Predictive Analytics

Business owners have traditionally relied heavily, if not solely, on financial statements and management reports to inform their decisions. While these tools are certainly valuable, the information they provide is only descriptive. In other words, these tools are limited to telling us what happened in the past and why something occurred.

Facing an increasingly competitive marketplace, companies today are searching for ways to stay ahead of the curve, which requires a forward-looking mindset and data-driven decision-making. Organizations must be able to pinpoint opportunities before their competition, identify and mitigate risks, and react quickly. Furthermore, companies must be able to manage their resources efficiently to maximize profitability, which can be challenging without knowing what to expect in the future.

A 2013 Data Warehousing Institute (TDWI) survey report shows that more and more companies are beginning to realize the importance and value of being predictive and proactive. According to the survey, which was conducted on hundreds of business and IT executives, 86 percent of companies were either investigating potential uses for (52 percent), or were actively using (34 percent) predictive analytics technology. An earlier version of the TDWI survey conducted in 2007 showed that only 6 percent of respondents had fully implemented predictive analytics as part of their organization's planning activities.

The increasing popularity of predictive analytics is no surprise given the positive results it has produced for companies that have adopted the technology. According to a Ventana Research study on more than 2,600 companies, over two-thirds of respondents were satisfied with the impact predictive analytics has had on their organizations. Additionally, 68 percent reported that predictive analytics has helped them gain a competitive edge.[1]

How Companies Can Use Predictive Analytics

According to Ventana Research, organizations use predictive analytics for two reasons: to find new opportunities to generate revenue and increase profitability.[2] Predictive analytics can be applied in a variety of ways to drive revenue and increase your bottom-line. Below we describe some common applications for predictive analytics.

[1] Ventana Research. (2012). Predictive Analytics: Improving Performance by Making the Future More Visible. San Ramon, CA.
[2] Ibid.

SALES FORECASTING

Companies can improve the accuracy of their sales forecasts with predictive analytics. Predictive analytics can help uncover trends and patterns in a company's historical sales data and financial performance. Using those trends and patterns, analysts can predict revenue based on the company's current sales pipeline.

New companies with little or no historical financial information can also forecast with predictive analytics. In these cases, the predictive models often rely on different types of data, such as industry sales figures, economic indicators, market demographics, or the financial performance of similar companies.

OPTIMIZE MARKETING STRATEGIES

Companies can increase their bottom line by maximizing the return on their marketing investments. An increasing number of companies are collecting data from their marketing efforts and applying predictive analytics to better understand their customers and how to communicate with them more effectively.

Marketers today can collect valuable data about consumers through website analytics tools, online forms and surveys, email campaign results, and social media activity. Companies can also track buyer purchase patterns themselves or purchase similar data from third-party resources. By applying predictive analytics, marketers can transform this data into valuable insights, like who their most promising leads are, and who in their market is likely to purchase a particular product or service.

With this information, companies can target the various segments in their target market with more effective, personalized messaging. Predictive analytics can also show you which marketing campaigns and channels are most effective at driving sales. Ultimately, this can help you allocate more of your marketing budget to efforts that generate a higher return.

RETAIN CUSTOMERS

Predictive analytics can help you not only attract new business, but also help you retain the customers you attract and convert your first-time sales into recurring revenue.

To apply predictive analytics for customer retention, companies first need to collect data on their customers, including details about the products and services a customer purchased (e.g., price, brand), demographic and geographic information, and whether they are first-time or returning customers. By applying predictive analytics to this data, you can produce a "score" that indicates how likely a customer is to make additional purchases. If you know which customers are more likely to return, you can target them with personalized marketing campaigns, like special rebate and discount offers or specific product or service recommendations. Providing personalized messages can help foster loyalty and keep customers away from your competitors.

RETAIN EMPLOYEES

Employee turnover creates significant direct and indirect costs related to training, lost knowledge, and decreased productivity. As such, improving retention is a primary objective for many HR departments. More than 60 percent of companies already invest in data and analytics tools for their HR departments, and many of them are beginning to use predictive analytics to help reduce turnover.[3]

Through predictive analytics, companies can identify which employees are most likely to leave, allowing them to proactively ensure that those who are most valuable are satisfied and appropriately incentivized. HR departments already have much of the data required to apply predictive analytics in this context, including level of pay, tenure, performance level, attendance records, and history of promotion. Some companies even incorporate socio-demographic information and employee commute time data into their predictive models.

MAXIMIZE RETURN ON ASSETS

Companies in certain industries—such as manufacturing, oil and gas, and transportation—are focused heavily on maximizing their return on assets. Many companies have reduced spending in recent years, placing added pressure on organizations to manage their assets more effectively. As a result, a growing number of companies have started using predictive analytics to increase capacity utilization and reduce downtime for equipment maintenance and failure.

For example, manufacturers can use sensors on their machinery and equipment to collect data and then use predictive analytics and real-time sensor data to identify potential malfunctions before they impact production. In fact, Mercedes-AMG began using a similar technique in 2012 to hasten the engine testing process and optimize overall production.[4] Railroad giant Union Pacific has saved itself millions of dollars in damages and prevented costly delays by adding visual and acoustic sensors to its railcars and applying predictive analytics to identify and mitigate train derailment risks.[5]

IDENTIFY GROWTH OPPORTUNITIES

Whether you are seeking to grow via merger or acquisition, expand geographically, or launch a new product or service, predictive analytics can help you improve the quality of your decisions.

[3] http://www.forbes.com/sites/joshbersin/2013/10/07/big-data-in-human-resources-a-world-of-haves-and-have-nots/#!
[4] http://www.sap.com/bin/sapcom/pt_pt/downloadasset.2014-10-oct-17-19.mercedes-amg-a-showcase-for-real-time-business-decisions-pdf.html
[5] http://blogs.wsj.com/cio/2012/03/30/union-pacific-using-predictive-software-to-reduce-train-derailments/

For example, if you are searching for M&A opportunities, predictive analytics can help you uncover synergistic opportunities and risk that accompany potential targets. It can also help you more accurately project the financial impact a transaction will have on your company. For geographic expansion, predictive analytics can help you identify which markets or locations offer the best growth potential and identify supply chain, workforce, and competitive challenges. It can also be used to guide your decisions surrounding new product or service launches by helping you determine market size, potential demand and optimal pricing strategies.

Looking Forward

As you can see, predictive analytics has a wide range of business applications that can help drive revenue and impact your bottom line. Companies are becoming more forward-looking and data-driven than ever thanks to the advent of Big Data, cost-effective tools and technology, and mounting competitive pressure. Predictive analytics has already been proven to have a significant positive impact on companies' financial performance. Additionally, many of the organizations that have already adopted predictive analytics report that it has helped them gain an edge against their competition.

As we noted earlier, predictive analytics is not a standalone decision-making tool that can provide a direct answer to every business challenge. However, it can undoubtedly provide business leaders with actionable insights that help companies navigate risks and lead to better, more informed decisions. Due to the strategic and financial benefits these insights provide, it is in the best interest of business owners and executives to investigate potential applications for predictive analytics within their own organizations.