Big data and advanced analytics are transforming the way companies market their products and services and foster customer relationships. These sophisticated tools are being used to better understand consumer preferences, buying patterns and key influencers in decision-making, as well as to validate marketing approaches that yield the best results.

The advent of digital technology has made big data widely available. The volume, speed and variety of data now being generated have never been seen before. In fact, more data has been created in the past two years than in the entire previous history of the human race! Data are being generated through digital media such as mobile phones, social media, digital ads, web logs, electronic devices and sensors connected through the internet of things (IoT).²

Big data requires warehousing, management and integration as well as sophisticated tools to analyze the data and provide marketers with insights into their customers' behavior, preferences and buying patterns. Through the integration of product management with data science, real-time data capture and analytics, big data is helping companies increase sales and improve the customer experience.

Here are some of the ways that big data is revolutionizing marketing:

- **Customer analytics** are being used to gain insights from data gleaned through customer interaction points to improve new acquisition rates, reduce turnover, drive brand loyalty, increase revenue per customer and improve the effectiveness of products and services.³

- **The Ideal Customer Profile (ICP)** has been the holy grail of marketing for decades — and it’s suddenly within reach. With the proliferation of customer data gathered from a wide range of sources, companies can better understand the ages, demographics, social habits and work profiles of their best customers and target marketing efforts accordingly.⁴

- **Predictive analytics** enables companies to pinpoint customers who are interested in their products and services at the right time and in the right places.⁵ It applies techniques from data mining, statistics, modeling, machine learning and artificial intelligence to analyze current data and make predictions about customers’ future behavior and activities.

- **Contextual marketing** integrates a variety of real-time data, much of it generated from online searches and geodata, to focus advertising so that it is relevant to the customer at the right time and place. For example, if a customer from Maine is on vacation in Florida, mobile advertising may be geared to swimsuits instead of snow blowers. What makes contextual marketing different from content, social media or mobile marketing is that it is timed to appropriately fit the context of the customer experience.⁶

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- **Omni-channel marketing** delivers a consistent, personalized buying experience that is synchronized among the range of channels and devices a customer may use. It creates a one-on-one experience based on personal engagement with the customer. Big data enables companies to analyze information from several sources and gain insights to improve and further personalize the customer experience.

- **Customer loyalty programs** are being enhanced by algorithms that analyze data and the application of machine learning. This combination can suggest remedies to teams after a poor customer interaction or reinforce brand loyalty with a customer after a positive experience. Fresh customer feedback and real-time experience data can be shared with employee teams to improve customer relations processes and interactions.

- **Monetizing “data exhaust”** is growing as big data’s value is being recognized beyond its initial acquisition or application. Companies see data exhaust sales as a way to add value and revenue by selling the data gained in their normal course of business. However, broad application has been slowed due to concerns about customer privacy, retaining customer trust and brand loyalty, and structuring appropriate business models.

To discuss these topics in more detail, please contact your PNC Relationship Manager.